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TEACHERS AND LITERACY

Wendy K. Warren
Ruth Rees
RossAnn Edwards

A national study conducted by the

Social Program Evaluation Group
Queen's University at Kingston

for the

Canadian Teachers' Federation

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FOREWORD

This study was made possible through funding provided to the Canadian Teachers' Federation (CTF) by the National Literacy Secretariat of the Secretary of State of Canada. The CTF contracted the Social Program Evaluation Group at Queen's University to carry out the study. Geraldine Gilliss, Director of Research and Information Services, Canadian Teachers' Federation, gave support and encouragement to the research team throughout the course of the study.

To study how teachers (1) view literacy issues and (2) teach students who have literacy difficulties was a complex task which required the cooperation of a number of individuals and groups. Each provincial teachers' association/federation/union contributed to the study by promoting the participation of its members in the sample of schools, arranging for the interviews and following up late questionnaire returns. Their representatives in each school contributed by distributing the questionnaires and returning them to Queen's University.

The teachers interviewed in major Canadian cities and environs generously gave their time and inspired us with their sense of dedication in teaching students, especially those students who find school difficult. The teachers who completed the questionnaire and described the ways they develop literacy competencies contributed significantly to the study. Administrators, consultants, librarians, specialists, counsellors and other non-teaching professionals also provided invaluable input to this study.

Dr. Alan King, Director of the Social Program Evaluation Group, advised the researchers on research design issues and provided guidance in the overall interpretation. Catherine Michalski assisted in the interviewing and shared her insights with us during conceptualization of the issues. Pascale Jean carried out some Quebec teacher interviews and pilot tested the French questionnaires. Dr. Terry Smith, Director of Queen's University STATLAB, provided advice on the statistical analyses of the extent of literacy. Matthew King performed the computer analyses and helped us in data interpretation. Beverley Coles assisted in the data collection, interpretation and editing process. Regine Halseth prepared the graphics, Allison MacDuffee and Verena Carl helped prepare the text, and Myrtle MacRae handled the budgetary matters.

The interpretation of the information in the report reflects the views of the authors and not necessarily those of the Canadian Teachers' Federation. We take full responsibility for any errors in interpretation which might arise in the presentation of findings and recommendations.

This study, considered an important International Literacy Year activity, has served to heighten both researchers' and participants' awareness of the continuing struggle for literacy. We are grateful for the opportunity to draw attention to the proactive, constructive work of Canadian teachers and to the increased emphasis needed on the literacy development of young people.

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CHAPTER I

BACKGROUND

A. INTRODUCTION

The **Teachers and Literacy Study** was conducted by the Social Program Evaluation Group of Queen's University, Kingston, Ontario for the Canadian Teachers' Federation. Funding was provided by the National Literacy Secretariat as one of the Canadian projects to be carried out in recognition of International Literacy Year. The purpose of the study was to survey Canadian teachers for their perspectives on the nature and extent of literacy problems within their classes, on the factors affecting their students' literacy development and on those actions, strategies and resources that are effective in improving the literacy of Canadian students having difficulties.

B. REVIEW OF THE LITERATURE

1. Literacy in Canada

During the past decade literacy and its counterpart, illiteracy, have become frequently cited educational issues in Canada. The attention has focussed on various aspects such as prevalence rates and literacy acquisition. The concern has taken different forms including three national studies (The Southam Study, a Statistics Canada study and a Conference Board of Canada survey of businesses), a provincial task force (the Manitoba Task Force on

Literacy), an expansive literacy campaign (province-wide in Saskatchewan and throughout the Northwest Territories) and numerous educational program initiatives (e.g., community literacy projects, school-based literacy projects). The media have often focussed on two literacy themes: outcries over the reported existence of "one-in-four illiterates", and the discrepancy between the literacy demands required in our highly information-centred, technological society and the level of literacy students are reported to have attained in our school systems. The rates and levels of literacy have been of interest to many: those concerned about our nation's ability to compete in the world, those wanting capable employees, and those with the goal of empowering individuals to cope in our society.

How do Canadians fare in the area of literacy? Traditionally, those examining literacy rely upon information from Statistics Canada for an answer to this question. Those people 15 years of age and older who have completed a specified grade level have been identified as the literate people in our society. The grade level specified has, in recent years, shifted from Grade 5 to Grade 9. "Typically, reading and writing at the Grade 9 level, or at a level suitable for entry into high school are seen as bench marks" (Manitoba Task Force on Literacy, 1989, p. 1). In 1986, the percentage of Canadians, 15 years and over, having less than a Grade 9 education was 17.7 percent (Mori & Burke, 1989, p. 13). Persons reading and writing at only the Grade 9 level are frequently termed "functionally illiterate" (The Royal Commission on Employment and Unemployment, Government of Newfoundland, 1986). The assumption is that without reading and writing skills at this level, persons will not be able to function adequately in our society.

The Southam Study was conducted by the Creative Research Group Ltd. for Southam News to assess literacy in Canada (Calamai, 1987). The definition of literacy used in that study was the same as that adopted by an American research project, the National Assessment of Educational Progress (NAEP), in its 1983 to 1984 literacy profile of young adults:

> Using printed and written information to function in society, to achieve one's goals, and to develop one's knowledge and potential. (Kirsch & Jungeblut, 1986, p. 6)

Proficiencies on tasks designed to simulate those found in adult settings were measured through items from three scales--prose, document and quantitative. These "literacy scales" were used to represent distinct aspects of literacy. The tasks used were adapted from those used in the NAEP study. A panel of jurors determined the criteria for functional literacy by designating those items for which correct answers would identify a person as functionally literate. The Southam research found that 24 percent of Canadians (aged 18 and older) were functionally illiterate.

The Southam Report has received criticism on a number of points, including the functional definition, illiteracy rates, and the tests used. Froese (1988), commented that, "the first and most obvious question that must be asked is whether the definition of functional literacy used here is intuitively meaningful" (p. 125). David Olson, in a Globe and Mail article, suggested that the test did not present valid grounds for concluding that a functional illiteracy rate of nearly 25 percent of Canadians exists. He argued that much lower illiteracy estimates would result if functional tests were based on the reading that is relevant to the people being tested. It is interesting to note that the NAEP project, the Southam study's model, used the literacy scales in order to "recognize the various types and levels of literacy characteristic of our society today" (Kirsch & Jungeblut, 1986, p. 2). Further to this, "no longer can we rely on distinctions based on the simplistic notion that 'literates' and 'illiterates' can be neatly pigeonholed" (p. 2). Indeed, Gilliss pointed out, "It is probably more accurate to represent literacy as a continuum from very low to very high performance levels than to choose a sharp cut-off point between literates and illiterates" (1988, p. 3).

Gilliss's observation was made in the context of a secondary analysis of the Southam findings for Canadian-born respondents aged 18 to 24 carried out for the Canadian Teachers' Federation. Eighteen percent of those young adults were found to be functionally illiterate. In that analysis their characteristics were summarized:

> Born into families with limited educational background, they are less likely to have been read to as children or to have had access to educationally relevant materials in their homes. In some cases they are further disadvantaged by being born into a language group other than English or French. In school they are more apt to be classified as learning disabled and placed in special classes. They also appear to suffer from a higher incidence of hearing and sight problems and of long-term illness. (Gilliss, 1988, p. 5)

These findings reflect the disproportionate representation of ethnic and linguistic minorities in unsuccessful school achievement documented by Porter (1979).

The recent Statistics Canada study, built upon the 1987 Southam study, classified respondents into four literacy levels. This former comprehensive survey of the literacy skills of adult Canadians in 9,500 homes revealed that 7 percent of Canadians have difficulty with printed material (many of them could not read at all), and 31 percent have a limited ability to absorb and analyze information from written material (Statistics Canada, 1989). In addition, this study reported that 14 percent of Canadians have very limited numeracy abilities and another 24 percent of Canadians can only perform simple numerical operations.

A recent Conference Board of Canada survey reported that 70 percent of 626 business establishments have significant problems with functional illiteracy in some part of their organization (DesLauriers, 1990). In fact, the companies surveyed, with over

50 employees, reported that between 1 and more than 30 percent of their workforce had problems with functional literacy.

Literacy is a highly complex issue. This is reflected in the multidisciplinary perspectives on literacy present in the literature. While literacy generates much interest, however, it continues to lack an integrated theory (Stubbs, 1980).

2. What Are the Issues?

a. Definitions of Literacy

Numerous attempts have been made to define literacy over the past 50 years. As yet, no definition or basis for measuring literacy has received consensual agreement. Taber (1987) presented a dichotomy in discussing literacy definitions. Definitions which are relative emphasize need and function within a society; definitions of an absolute nature focus on a standard or criterion. Critics rejected the definition of literacy in absolute terms (skills or achievement levels) because arbitrary standards are set with a disregard for sociocultural relevance (de Castell, Luke & MacLennan, 1986; Hunter, 1987; Scribner, 1984). Brodkey (1986) argued that even when literacy is defined as functional literacy, it is operationalized as a set of tasks which do not necessarily take the learner's objectives into account. Definitions that are not related to standards, on the other hand, are seen as unmanageable for the researcher (Taber, 1987). Sofo (1988) suggested that whatever the definition, it should:

> be concerned with literacy both as a complex collection of learned processes and skills, and as a collection of tools useful for conceptualisation and for practical application of the skills in the meaningful daily activities of the person. (p. 266)

Literacy, then, is seen by many researchers as a concept that is relative to purpose and context and goes beyond the simple mechanics of reading and writing to include complex information-processing skills (Heath, 1980; Holdaway, 1979; Kirsch & Jungeblut, 1986; Scribner & Cole, 1981).

The framework for literacy used in the study presented in this report focussed on the school view of literacy as reading, writing, oral expression and the arithmetical analogue, numeracy. Teachers were asked to give their perspectives on their students' literacy development based on a Literacy Guide that included two competency levels (basic and critical) for the communication skills of listening, understanding, speaking, reading, writing and computing. This "definition" may seem narrow given the work of Scribner and Cole (1981) who emphasized the culture and situation-specific nature of learning tasks within and outside of school (Erickson, 1984). However, this study's intent was not to separate learners into categories of literates and illiterates, but to have teachers identify learners who have literacy difficulties in the context of the specific learning tasks in school in order to understand more about the learners' characteristics and ways to help in the development of the literacy of learners in general.

b. Literacy: Quantity vs. Quality

De Castell and Luke (1987) argued that the often-claimed literacy crisis subsumes two distinct issues: the quantity of literacy and the quality of literacy. The quantitative concern focusses on the rates of literacy or illiteracy as determined by large-scale assessments using specific criteria (e.g., grade level). As stated earlier, the notion of literates and illiterates is simplistic and does not acknowledge the different types and levels of literacy (Kirsch & Jungeblut, 1986).

The qualitative concern emphasizes:

> technological and cultural development, and the focus is on a perceived decline in general educational standards, criticizing the quality of literacy of the roughly 80 percent of the population acknowledged to be "functionally literate."
> (de Castell & Luke, 1987, p. 415)

MacGinitie and MacGinitie (1986) discussed an apparent trend toward improved skills in the mechanics of reading at the elementary level and decreased inferential comprehension abilities at the secondary level. The NAEP's literacy study (1986) found that the majority of young adults could perform tasks at low levels of difficulty, but many did not perform well on moderately complex tasks and only a small percentage could manage the tasks at a more complex level.

Bereiter and Scardamalia (1987) maintained that new models of curriculum and instruction are needed in order for "high literacy" to be more attainable by the majority of students. This same concern is evident in current provincial guidelines across the country. In an overview of literacy education in Canada, Maclean, Gordon, Hopper and Miller (in press) report that increasingly "emphasis is placed on providing students with opportunities to develop thinking skills within the context of literature, media, and language itself."

3. Literacy: The Teachers' Perspectives

Educators at all levels are among those looking for changes that will ameliorate the literacy situation. The Canadian Teachers' Federation (CTF), for example, has developed a set of policies that:

> accept functional literacy as an appropriate goal of schooling and outline the respective responsibilities of government, school systems, parents and teachers in ensuring that every child has a full opportunity to become functionally literate.
> (Gilliss, 1988, p. 11)

While social change and educational reform may well be needed for improving the educational outcomes of more students, there is also merit in examining the changes at the school and classroom level that are seen as making a difference (Erickson, 1984).

Current views of teaching and research emphasize that educational improvements require "working through teachers rather than trying to work around them" (Porter & Brophy, 1988, p. 74). Recognizing that the responsibility for creating environments that support literacy learning does not lie with one system or group, and also acknowledging the vital role of the teacher in promoting literacy development, this study examined teachers' perspectives concerning:

- the extent and nature of their students' literacy difficulties;
- strategies seen as being the most effective in promoting the literacy of students having difficulties; and,
- those changes that are required for teachers to better promote literacy.

4. Factors Affecting Literacy Acquisition in School

The problems associated with literacy acquisition are as complex as the nature of literacy itself. They include the background of students, the "middle class" expectations of teachers, the nature of instructional tasks, and television. Although problems appear to be more prevalent in students from cultural, linguistic and socioeconomic backgrounds outside the dominant middle-class culture, we are warned against simply attributing students' problems to their language or culture (Erickson, 1984; Moll, 1986). The findings of Anderson and Stokes (1984) demonstrated that low-income, minority, pre-school children had as much contact with literate activities as did "privileged" children. On the other hand, literacy is tied to its social meaning which can vary from culture to culture and from community to community (Heath, 1980; Scribner & Cole, 1981). Some researchers suggest that literacy difficulties result when students are confronted with expectations and tasks that are inconsistent with those found in their homes and communities. Olson (1986) pointed out that students with literacy difficulties often lack the necessary prior experiences and knowledge to construct meaning from assigned tasks.

A recent report of the Canadian Task Force on Mental Health Issues Affecting Immigrants and Refugees (1989) outlined research that demonstrates how educational achievement and literacy development of young people from ethnocultural groups can be inhibited. For example, new immigrant and refugee students are often not encouraged to speak or answer questions to the same degree of complexity as are Canadian-born, middle-class students. In addition, they may not be given the time they need to formulate answers or correct themselves.

During a 1987 series of literacy seminars held in Toronto, participants in the workshop on **Literacy and Public Education: Illiteracy in Universally Accessible Public School Systems** identified one of the complex reasons for literacy problems to be "the implicit expectations for children made by the dominant middle-class culture, which assumes that its views are the norm" (International Seminars on Literacy in Industrialized Countries p. 79).

Many argue that students require more reading and writing activities of a meaningful nature in order for literacy to be more actively promoted in school (Holdaway, 1984; Smith & Feathers, 1983). At the elementary level, programmed or lock-step approaches can "reduce literacy to ritual and triviality for children, and leave little time for engagement with meaningful written language" (Smith, 1988, p. 29). Feathers and Smith (1987), examining literacy and subject classes (other than English) at the secondary level, found the majority of instructional activities to be text- and fact-centred, unrelated to the students' worlds and not requiring higher intellectual activities.

Finally, the amount of television watched by students can affect their ability to read, and express themselves orally and in writing. Decker (1986) stated that television is detrimental to reading comprehension, particularly among disadvantaged children. Lieberman (1983) said television programming contributes to vocabulary stagnation.

5. Factors Contributing to Literacy Acquisition in School

The literature contains a number of consistent themes related to literacy development. Emphasis is placed on making reading and writing relevant, bringing everyday uses of print into classrooms (Decker, 1986; Holdaway, 1984; McClendon, 1986). Capitalizing on children's literacy-related skills used in out-of-school contexts helps to bridge the gap between the practices of home and school (Freeman & Sanders, 1987; Holdaway, 1979). Sofo (1988) pointed out that curriculum must be relevant and address the real-life needs of adolescents. Feathers and Smith (1987) concurred, stating that "teaching and learning activities in schools must reflect tasks, problems, and issues which commonly confront citizens outside of school, and the skills for dealing with them" (p. 511).

Literacy is encouraged by focussing on the construction of meaning (Avery, 1987; Shanklin & Rhodes, 1989) and the variety of communicative functions that can be accomplished (Bloome, 1986). Practices that would have literacy viewed as an end-product are discouraged. Learning to read and write through reading and writing to learn other subject matter is emphasized (Decker, 1986; Heath, 1980; Holdaway, 1984), as is the use of a wide variety of resources and materials (Mikulecky, 1984).

Interactive classroom environments (Feathers & Smith, 1987; Stock, 1986) and providing for a high level of student ownership of the learning (Avery, 1987; Tierney & Rogers, 1986) are recommended for the promotion of literacy. The above themes can currently be found in curriculum guidelines across the country and are reflected in frequently used key phrases such as, "integration, holistic approaches, transactional teaching, process writing, response to literature, and developmental processes" (Maclean et al., in press).

Another recommendation is that of involving the parents in literacy programs. The benefits of having parents as partners in the learning process are discussed by Shuttleworth (1986). Taylor

(1983) agreed and said, "It seems reasonable to assume that if literacy becomes socially significant in the lives of the parents, it is likely to become socially significant in the lives of the children" (p. 88). For this to occur, she urged parents' participation not only in the implementation of literacy programs, but also in the design.

6. Report Outline

Chapter II, which follows, presents the research design and methodology, and the survey response rates. Chapters III and IV contain the findings. Chapter III describes teachers' perspectives on: literacy today, the extent of literacy difficulties in today's students, factors affecting literacy development and teachers' definitions of literacy. Chapter IV gives actions taken by teachers to improve the literacy of those students having difficulties, and the strategies and resources relied upon by teachers and principals in developing literacy. Chapter V presents a summary of the study, our conclusions and some recommendations.

CHAPTER II

THE RESEARCH

A. INTRODUCTION

This chapter outlines the methodology used in this study, describes the respondents and the returns, and discusses the limitations of the research.

B. METHODOLOGY

The design of the research, definitions, instrumentation, sampling and data collection are described below.

1. Research Design

This study was concerned primarily with the perspectives of educators on literacy. To gain insight into teachers' perceptions of their students' literacy, the study was conducted in two parts: (1) focus group interviews and (2) a questionnaire survey. The focus group interviews explored the most salient literacy issues indicated by teachers, the instructional and programming efforts taken to improve students' literacy and recommendations teachers wished to express. These concerns, ideas and suggestions were then incorporated into the design of a questionnaire which was administered to teachers across Canada. Also, some teacher interviews were conducted after the survey to further expand on the information collected.

Principals were administered a questionnaire different from that of the teachers in order to provide some context for teacher responses--the school description, school policy and direction on literacy, and the concomitant school-wide literacy activities.

2. Definition of Literacy

It is recognized that literacy is a complex issue, culturally-bound and situation-specific. Nevertheless, because the intent of this study was to examine teacher perspectives, literacy was defined within a school-oriented context that would provide teachers with a common conceptual base when discussing their students' literacy. Teachers were asked to consider literacy as spanning a range of competencies--in the traditional reading and writing sense, as well as in oracy and numeracy.

A Literacy Guide, developed in an iterative process during the interview phase, was used in the teacher questionnaire (see Table 2.1). The guide encompasses the areas of reading, writing, oral communication and mathematics at a basic and at a critical competency level. Although general descriptions were given within each area, teachers were asked to consider them in relation to tasks pertinent to a curriculum they taught within a particular grade. Teachers of the primary grades were directed to focus on early or pre-literacy competencies in the four areas.

TABLE 2.1: LITERACY GUIDE

A BASIC (lower-order)	
Reading	- understanding word meanings and concepts presented in uncomplicated contexts
Writing	- using simple sentences with common words to express ideas and content
Oral Communication	- comprehending; expressing concrete information and ideas in varying contexts
Mathematics	- applying computation and basic concepts to routine problems
B CRITICAL (higher-order)	
Reading	- analyzing and evaluating what has been read
Writing	- writing developed, elaborated expression
Oral Communication	- listening interpretatively; articulating ideas in an organized way
Mathematics	- analyzing situations; applying strategies to complex problems

3. Phase 1 - Focus Group Interviews

The focus group interviews were arranged for us by teacher association/federation/union representatives (hereafter referred to as teacher association representatives) and were comprised of teachers who were keen to promote literacy and had encountered students having literacy problems. One hundred and thirty-one teachers across grade levels and disciplines in Vancouver, Winnipeg, Toronto, Montreal, Halifax and surrounding areas were interviewed in groups of three to five. In some instances, professional support personnel (consultative and administrative) also took part. Table 2.2 presents details on the interviewees from each major area. Those interviewed were drawn from elementary classroom teachers (including French immersion), special education teachers, resource teachers, teacher-librarians, guidance counsellors, secondary school subject teachers (e.g., Mathematics, English/French, Technological Studies, Social Studies, Business, Science, Music, Art, Physical Education), consultants and administrators.

TABLE 2.2: INTERVIEW PARTICIPANTS

	TEACHERS								OTHER[**]					
	K-3		4-6		7-9		10-12[+]		RES/LIB/ SP ED.		ADM/ CONSLT		TOTAL	
LOCATION[*]	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Vancouver	1	3	1	-	1	4	2	2	-	1	1	2	6	12
Winnipeg	-	1	3	2	-	2	-	2	2	2	7	2	12	11
Toronto	1	3	2	2	1	1	4	4	1	4	4	3	13	17
Montreal-Fr	-	6	1	2	2	3	1	1	-	-	-	-	4	12
-Eng	4	1	6	1	1	1	2	3	1	1	1	1	15	8
Halifax	-	2	-	3	-	-	3	1	2	2	-	1	5	9
Other	-	-	2	-	2	-	2	1	-	-	-	-	6	1
TOTALS	6	16	15	10	7	11	14	14	6	10	13	9	61	70

[*] Each location included environs which serve students from rural areas.
[**] Most of these individuals referred to classes or individual students they were or had been teaching.
[+] Teachers of OAC (Ontario Academic Credits) are included.

The focus group interviews were conducted for two main purposes.

First, the investigators gained an understanding of teachers' experiences with students having literacy problems, the instructional strategies they had implemented, and the recommendations they had for dealing with literacy concerns. Second, the teacher input during the interviews influenced the design and refinement of the questionnaire. Focus group sessions, which ranged from forty-five minutes to two hours, entailed open-ended discussion and solicited teacher responses to structured questions (see Interview Guide in Appendix A). The interviews were held either in schools or teacher association facilities.

4. Phase 2 - The Survey

The rationale for selecting the survey method was based on a decision to obtain input from a large sample of Canadian teachers in an economically feasible manner.

To survey such a large population, it was necessary to design a structured questionnaire. The development of the questionnaire continually evolved through the testing of items during the focus group interviews. Spaces for comments were incorporated throughout the survey and teachers were asked to provide details on their particular situations in a number of open-ended questions. To make the questionnaire applicable to both elementary and secondary teachers, two versions were developed. Both followed the same basic format with differences in only a few questions. Each questionnaire was expected to take approximately 45 minutes to complete. The Teacher Questionnaires can be seen in Appendix A.

The initial part of the survey required teachers to provide background information, such as their role(s) in the school, gender, years of teaching experience, degrees held, and grades and classes currently taught. The second part asked teachers to describe the most recent class they had taught (i.e., the subject, grade, enrolment) prior to beginning the survey. Based on this class, and referring to the Literacy Guide (Table 2.1), teachers were asked to give the numbers of students they perceived as having literacy difficulties, the problem areas (reading, writing, oral communication, mathematics) and the numbers of students whose literacy was affected by various factors (cultural differences, learning English-as-a-second-language (ESL), impairment/ disability).

In the next two parts of the questionnaire, teachers referred to specific students. In the third part, teachers were asked to select two sample students from the described class; one student with basic competence literacy difficulties and one with critical literacy difficulties. Teachers provided background information on these two students, factors perceived as affecting the students' literacy development, students' areas of difficulty and strength, and the main methods used to assess the students' difficulties. The fourth part of the survey asked teachers to indicate the actions, strategies and resources they used in teaching and the effectiveness of each in promoting the literacy of the student having basic literacy difficulties. Strategies and resources found effective in working with the student having critical difficulties were requested in an open-response item.

In the fifth section, teachers were asked to identify options that would assist them in addressing students' literacy difficulties in general. Finally, teachers were asked to express what the term "literacy" meant to them and provide a final comment on literacy and their students.

The secondary school teacher version included an item asking teachers to compare students' literacy today with that of ten years ago. Elementary teachers responded to a strategy item dealing with language-learning approach used (e.g., whole language, skills-oriented, combination) and its effectiveness. Teachers not in a classroom setting or not encountering students with literacy difficulties were asked only to provide their recommendations, comments and literacy definitions in the final sections.

The brief Principal Questionnaire sent to each of the designated schools in the sample can also be seen in Appendix A.

5. Sampling

The survey sample was designed to accommodate the analysis of regional differences and a national analysis based on the weighted results of the six regions--British Columbia, the Yukon (initially included as a distinct region), the Prairies, Ontario, Quebec and Atlantic Canada. In each region, the sample size was determined by the targeted number of teachers for each of four grade groupings (approximately 500) plus an oversample (37%) which was included to ensure representation to plus or minus four percent on dichotomous items (e.g., on a Yes/No response) at a 95 percent level of confidence. The total target sample was 10,665 teachers; the 37 percent over sample (excluding the Yukon) resulted in a final sample of 14,473 teachers (the sample from the Yukon Territory was comprised of all teachers). (The four grade groupings were K to Grade 3, Grades 4 to 6, 7 to 9 and 10 to 12; teachers of Ontario Academic Credit [OAC] courses were included in the latter group.) The oversample was adjusted minimally in the Prairie and Atlantic provinces to account for the diversity within the region as well as to ensure equal representation of teachers within the grade combinations.

In order to include sufficient teachers for a regional analysis and keep the costs to a minimum, two-stage cluster sampling was used. School jurisdictions were systematically selected according to established criteria--public or separate, size of community, location of community within the province, and total student enrolment. Then one or more schools were randomly selected within each school jurisdiction. Eighty percent of the intended sample was chosen in this way. Because equal representation of teachers from the grade groupings, K-3, 4-6, 7-9 and 10-12 plus OAC, was desired, the remaining 20 percent of the sample was determined by randomly selecting more schools until the quota of teachers for each grade grouping was met. All the professional staff in each selected school were asked to participate in the survey.

Teachers from the Yukon and Northwest Territories (NWT) also participated in the study. In lieu of having many teachers from the Northwest Territories complete the survey, lengthy telephone interviews were carried out with five teachers in different schools. Teacher association representatives had advised the researchers that the proposed method of data collection in the NWT would yield very poor returns. Questionnaires were given to Yukon Teacher Association representatives attending a large teacher conference. These teachers then distributed them to colleagues in their home schools.

6. Data Collection

In most schools the teacher association representative was designated as the contact person for the study; in others the principal assumed this role. Surveys were mailed directly to these representatives, who were responsible for the distribution, collection and return to the research site, Queen's University. These contact people also completed a Questionnaire Return Form giving the numbers of returned questionnaires and stating, where applicable, teachers' reasons for not completing the survey.

C. SURVEY RESPONDENTS AND RESPONSE RATES

The majority of respondents were classroom teachers (84%). The remainder had different school roles--resource teachers (5%), administrators (4%), guidance counsellors (2%) and teacher-librarians (2%) (see Table 2.3).

TABLE 2.3: RESPONDENTS BY MAIN ROLE

	n	%
Classroom teacher	5074	84
Resource teacher	297	5
Guidance counsellor	134	2
Librarian	116	2
Teaching assistant	32	1
Administrators	262	4
Other, e.g. paraprofessional	128	2
Total	6043	100*

*Respondents who did not report on a class totalled 10%

The distribution of teachers across grade levels is shown in Table 2.4. The greater number of returns from primary teachers may be a reflection of a current emphasis on understanding the literacy acquisition of young children (as promoted by literacy experts such as Don Holdaway, Gordon Wells and Frank Smith).

TABLE 2.4: RESPONDING TEACHERS' GRADES

GRADES	%[*]
K-3	32
4-6	23
7-9	23
10-12[+]	22

[*] Not included are 96 teachers (2%) whose classes cross grade groupings.

[+] Teachers of OAC (Ontario Academic Credits) are included.

Teachers across all disciplines responded to the survey and, as expected, teachers of the Humanities made up the largest proportion (42%) of respondents in the higher grades (see Table 2.5). Math, Science and Technology teachers comprised one third of the respondents.

TABLE 2.5: SUBJECTS TAUGHT BY RESPONDING TEACHERS, IN PERCENTAGES

SUBJECTS	GRADE LEVEL K - 3	 4 - 6	 7 - 9	 10 - 12[*]
Most	88%	76	11	--
Math, Science, Technology	1	4	24	33
Humanities	4	12	38	42
Practical Arts	1	1	13	17
Other	7	7	14	8

[*] Teachers of OAC (Ontario Academic Credit) are included.

Table 2.6 presents the regional breakdown of the 6,043 individuals completing some portion of the survey. This number represents 60 percent of the targeted number of teachers.

TABLE 2.6: RETURNS FROM SCHOOLS AND TEACHERS (as a percentage of each target)

REGIONS	SCHOOLS	TEACHERS
British Columbia	53%[*]	31%[**]
Yukon	52[***]	39
Prairie Provinces	83	81
Ontario	78	62
Quebec	87	51
Atlantic Provinces	79	74
Canada	75	60

[*] Fifty-three percent of the schools in the sample had at least one teacher return a questionnaire.

[**] Thirty-one percent of the targeted number of teachers (i.e., 2,000 in B.C.)

[***] The percentage of participating Yukon schools was based on an estimate since schools were not recorded separately in some cases. Some of the questionnaires, given out at a conference for distribution in home schools, were returned to the Yukon Teachers' Association; some were returned directly to the research team without school identification.

The low rate of returns from British Columbia must be viewed in the context of the major changes taking place within their education system. These concomitant demands on many teachers' time understandably received higher priority than this study. Other B.C. teachers expressed the futility of participating in another educational research study. Although British Columbia was to comprise one of the five major regions, the low returns from this province necessitated aggregation of its data with those of the

Prairie region for data analysis and presentation. Also, Yukon data were included with those of Western Canada.

The lower than anticipated return rate is a result of a combination of factors. These included the time the questionnaire was received by teachers (during pre-Christmas activities) and the length and complexity of the questionnaire. Also, the decision to ask all teachers within a school to complete the survey hindered the return rate as some teachers did not consider that their subject areas provided a basis for discussing their students' literacy. Some teachers believed that the literacy development of students should be considered only in the context of language arts or English.

An analysis was done of the information from the Questionnaire Return Form (see Appendix B). One part of the form listed several reasons teachers could give for not completing the survey. Although 87 percent of the forms were returned from the responding schools, only 60 percent of them specified the reasons given by staff members who did not complete the questionnaire. The most common reason for not completing the survey was a lack of time (42%). The second most frequent reason was that teachers were "put off" by the questionnaire substance (29%). However, from the comments received, it would appear that this reason was indicated by representatives who had received complaints more about the length of the questionnaire than the substance. Twenty percent of those who did not complete a questionnaire said they were either not interested in commenting on literacy (10%) or the survey did not apply to them (10%) because of their particular role in the school (some French immersion teachers, music teachers, industrial arts teachers, and a few history/ geography/science teachers). Illness and other unexplained reasons were given by eight percent of non-respondents.

During the interviews with secondary school teachers, it became evident that some teachers in the schools visited did not regard the development of literacy as part of their responsibility. They assumed that students would begin their courses with an acceptable ability to read, and communicate both orally and in writing.

Four hundred and thirty-four Principal Questionnaires were returned, representing 66 percent of the principals contacted. See Table 2.7 for the rate of returns by region. On average, they were well established in their role as principals, with fewer than one quarter of them (23%) having been in their positions less than five years. Approximately 45 percent of the schools described by the principals were in small towns of less than 10,000 people; slightly more than one quarter of the schools (28%) were situated in small-and medium-sized cities. A little more than half of the schools (58%) were comprised of mostly students from middle-class backgrounds and less than one-third (31%) from lower-class backgrounds. (Tables C-1, C-2 and C-3 in Appendix C present the descriptions of the principals and their schools.)

TABLE 2.7: PRINCIPALS' RESPONSES BY REGION

REGIONS	n	% OF RESPONDENTS	% OF CONTACTS
Atlantic Provinces	106	25	72
Quebec	79	18	87
Ontario	75	17	67
Western Provinces	174	40	57
TOTAL	434	100	66

D. LIMITATIONS

Throughout this report, it is important to remember that the study deals with teachers' perspectives. That is, the findings solely reflect teachers' perceptions of their students' literacy, of influencing factors, of what is most effective in promoting the literacy of those students having difficulties, and of what is needed to help improve students' literacy. The perceptions of some teachers may be a result of rigorous evaluation; others may be assumptions based on a limited amount of information. Where possible, discrepancies between what teachers perceive and what the research and the literature offer are presented.

Ideally, numerous interviews in each province and territory would have been held in order to elicit the kind and amount of information desired. Use of a survey to gain the same information resulted in a lengthy and complex instrument that was criticized by some teachers. Teachers interviewed during Phase I and during the pilot testing of the questionnaire seemed generally able to cope with the complex parts of the questionnaire and the length of it. However, the researchers failed to take into account some warnings received about the length and complexity being unacceptable to some teachers who, it was predicted, would not consider questionnaires on literacy a priority in their very busy schedules. This unacceptability of the questionnaire to some, lack of commitment to the study by others, and heavy workload of many were perhaps the reasons that some schools' teacher association representatives did not undertake their role as assiduously as we had hoped. Those teachers who took the time required to complete the survey may not be representative of the total teaching profession.

E. PRESENTATION OF RESULTS

For the most part, cross-Canada results are presented. In the estimates of the extent of literacy difficulties, the regional data were weighted to produce the Canadian information. Regional results are presented for the main issues in Appendix D, and in the text where differences were statistically significant. Significant differences were determined by examining chi-square p-values. (A p-value of .05 or less was usually considered to be significant. The assessment of significance was, however, dependent upon the number of response categories for a particular item. Practical significance--differences which are meaningful in a practical sense--was also taken into account.)

Verbatim comments made by teachers during the interviews are presented throughout the report to illustrate the findings and conclusions.

CHAPTER III

TEACHERS' PERSPECTIVES ON LITERACY

A. INTRODUCTION

In this chapter we present different aspects of how teachers view literacy. First, we describe three students who have literacy difficulties similar to those that teachers said were evident in their classes. Then we follow with teacher perceptions of: students' literacy today compared with that of ten years ago, the extent of student literacy difficulties, the areas of difficulty exhibited, and factors affecting students' literacy development. Finally, definitions of literacy offered by teachers and principals are presented and discussed. Regional differences, where statistically significant and practical, are highlighted.

B. CASE HISTORIES

We begin by presenting descriptions of three real students experiencing difficulties who were chosen by their teachers to represent the kinds of literacy problems they face in their classrooms.

Steve

> Steve was two years older than most of the students in his Grade 2 class. The school he attended was located in a lower-middle-class neighbourhood of a small city. Steve, as described by his classroom teacher, "basically could not read, although he was ten years of age." He demonstrated early reading behaviours but was not able to decode words. Steve memorized words from the stories and poems that he heard frequently and enjoyed interacting with books but was not able to tackle material that he had neither seen nor heard before. His teacher described Steve as being deprived of experiences which would stimulate the development of his language

ability. She felt that more than needing to learn reading strategies Steve needed to be exposed to more experiences in his environment. He lived with his grandmother who seemed concerned about his progress, but could not read with him.

Joan

Joan, a Grade 6 student (11 years old), attended a school in a large suburb of a major city. The school was situated in a low to lower-middle class area with many ethnic groups represented. Joan's classroom teacher described her as having basic difficulties in reading, writing and mathematics and stated that "Her attitude needs to be more positive before it is possible to figure out what she can and can't do." Previously placed in a social adjustment program, this was her first year of regular class placement. She had been formally identified as having a learning disability and emotional/behavioural problems. Joan lived in a foster home and had been sexually abused when she was younger.

Peter

Peter (16 years old) lived in a large city and attended Grade 11 advanced level classes in a school serving mostly students from upper middle class homes. His History teacher described him as a bright, interested, yet frustrated student. He possessed excellent oral skills but could not write even the most basic words. The teacher explained:

> When I received his first assignment I couldn't believe it was his because I not only couldn't read it--his handwriting was so poor --but there was no spelling beyond primary. Even basic words were just non-existent.

Peter lacked self-confidence and was very concerned about losing his status among his peers should they become aware of his writing problems. He had been referred and tested for a learning disability, but he was not formally identified as an exceptional student. Without a reasonable explanation for Peter's very minimal writing skills the teacher could only offer that somehow Peter "just didn't get those skills." He was said to have a loving and stable home life. Books were valued and plentiful and Peter read in his leisure time. He held a part-time job which he did not want to give up.

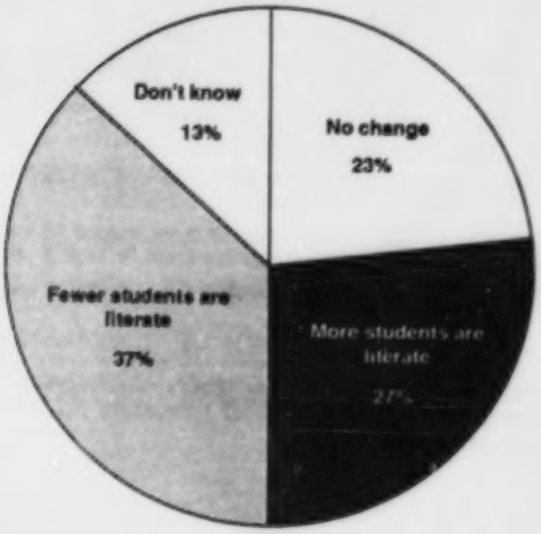
These three students provide a glimpse into the struggle of students and their teachers in classrooms across Canada. It is within the context of reference to particular students that this report attempts to illustrate the scope of literacy problems which teachers are encountering, the complexities of the influencing factors and the strategies and resources teachers use.

C. LITERACY: TODAY AND ONE DECADE AGO

A current issue in the area of literacy is the extent to which quality in lieu of quantity is the real concern. While some lament the numbers of individuals who are not literate according to a specific standard, others are concerned about declining abilities to perform tasks at more complex levels. We were interested in the position of teachers on this issue and asked secondary school teachers to compare very broadly the quantity and quality of their students' literacy with those of students they taught 10 years ago. (Elementary school teachers were not asked to make these comparisons.)

Figure 3.1 shows that over one third (37%) of secondary school teachers believed fewer students are literate today. Slightly more than one-quarter (27%) felt that more students are literate, and just under one-quarter (23%) reported no change. Thirteen per cent said that they did not know. In all, one half of teachers consider students at least as literate as they were 10 years ago.

FIGURE 3.1: SECONDARY TEACHERS* REPORT ON STUDENTS' LITERACY TODAY VS. 10 YEARS AGO

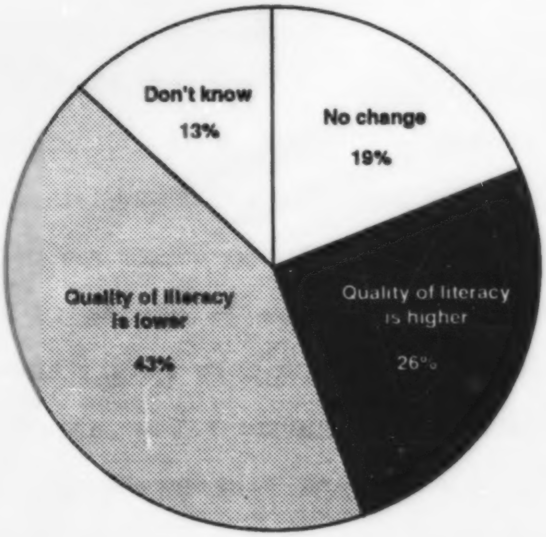


*22% did not teach 10 years ago.

Regionally, teachers' perceptions of change in literacy over the decade varied somewhat. (See Table D-1 in Appendix D). Quebec and Atlantic Canada teachers tended to be more decisive in their views (fewer expressed "don't know") and more likely to declare that more students were literate today (Quebec--32%; Atlantic Canada--31%). Fewer Ontario teachers (23%) and Western Provinces teachers (25%) felt more of their students were literate today. However, a higher proportion of Quebec teachers (43%) than elsewhere believed that fewer of their students were literate today.

Figure 3.2 shows teachers' views of the quality of literacy currently compared with that of a decade ago. The quality of students' literacy was considered lower than that of 10 years ago by more than two fifths of teachers (43%). One quarter (26%) perceived a higher quality of literacy, one-fifth (19%) believed that nothing has changed and 13% indicated that they did not know. The proportion of teachers who see the quality of their students' literacy as at least equal to or higher than the level of 10 years ago (45%) is comparable to that of those perceiving a deterioration in the standard of literacy in today's students.

FIGURE 3.2: SECONDARY TEACHERS* REPORT ON QUALITY OF STUDENTS' LITERACY TODAY VS. 10 YEARS AGO



*22% did not teach 10 years ago.

The following comments were typical of those made on the questionnaire and heard during interviews:

> Some of my students cannot read and understand...they can read the words, but they don't understand them. (Grade 4 teacher, Quebec)

> Because education has become more universal, more students are perhaps basically literate. However, the lowest common denominator effect has possibly reduced the quality at the higher levels of literacy.
> (Grade 10 French teacher, New Brunswick)
>
> Few students really understand how to solve problems... students seem to really have difficulty with higher level thinking skills--the amount of video material available is providing competition.
> (Grade 7 Social Studies teacher, Alberta)
>
> In mathematics there are many writing problems. It is with written text that the students have their difficulties.
> (Translated--Grade 9 & 10 Mathematics teacher, Québec)

Similarly, large-scale assessments are yielding the following general trend:

> ...children show improvement in the fundamentals of literacy, but achievement in "higher-order" interpretation, critique, analysis, and composition is apparently in the decline.
> (de Castell & Luke, 1987, p. 416)

However, as stated, a relatively high percentage of teachers (45%) perceived their students' literacy was either the same or at a higher level than literacy 10 years ago. One of the reasons for the discrepancy between some teachers' optimistic perspectives and the negative findings of recent studies may be that in some classrooms most students are "highly" literate:

> My class is a split 5/6 group of top students. We try everyday to use different modes of learning. I have no real problems; they are all quite literate in that they read and write very well.
> (Grade 6 Social Studies teacher, Nova Scotia)

Another explanation may be a poor awareness of what constitutes "higher-order" competencies. Some teachers appeared reluctant to identify students with literacy difficulties at a critical level. During an interview one teacher admitted:

> First of all, I don't know how well teachers are addressing this critical aspect--this critical level of thinking. We're supposed to but we're not.
> (Grade 7 Art teacher, British Columbia)

In the questions on quantity and quality of literacy, we do not know whether teachers referred to a basic or higher level of literacy. Many of the interviewed teachers acknowledged different levels of literacy, as illustrated by a teacher of English as a first language:

> Can we expect the same quality for all? Different levels of literacy must be realized and accepted.
> (Grade 11 English teacher, Quebec)

The questions of the extent of literacy difficulties at a basic and a higher order level of literacy are addressed more thoroughly in the next sections.

Regarding the quality of literacy in today's students, some variation exists between the views of teachers in the four regions. Fewer Ontario teachers (19%) agreed that the quality of students' literacy is higher today than it was 10 years ago, compared with 26 percent or more in each of the other three regions; more Quebec teachers (50%) believed that the quality of literacy was lower today and fewer Quebec teachers (15%) felt there was no change in the quality of literacy over the last ten years. (See Table D-2 in Appendix D.)

In summary, secondary teachers do not appear to be in accord about the literacy of today's students. While over one-third perceive fewer students to be as literate today as 10 years ago, one-half find at least as many of their students as literate as they were 10 years ago. Approximately the same proportion of teachers believe the standard of literacy has declined as say it is the same or better.

D. EXTENT OF LITERACY PROBLEMS

Teachers were asked to use the Literacy Guide (Table 2.1) and then to indicate approximately how many students in their most recent class were having "basic" competency difficulties in at least one of four areas, and how many were having "critical" competency difficulties in at least one of the areas. (The four areas were reading, writing, oral communication and mathematics.) They were asked to consider those difficulties in comparison to the literacy level they would expect given the age of the students in the particular class. Also, in identifying students with critical literacy difficulties, teachers were asked to refer to students who had only higher-order difficulties and to exclude those students having basic difficulties. Fewer teachers (13%) reported on students in this higher-order category; that is, some teachers did not report on this at all. (In total, 5,060 teachers provided an estimate of the number of students in a recent class with basic literacy difficulties; 4,401 teachers did so for critical literacy difficulties.) The reasons for fewer responses about higher-order literacy difficulties could be that teachers were unable to identify students, consider critical literacy as defined, or they did not use a "0" to signify no students with problems. (Percentages were based only on responses; blanks were excluded.)

Their responses revealed that, overall, 18 percent of their students (in the most recent class) were having literacy difficulties using the "basic" competency definition and 12 percent were having "critical" competency difficulties (excluding those with basic literacy difficulties). The authors discourage the use of these percentages as "rates of illiteracy" for three reasons:

1. Literacy is a complex issue; whether a person is literate or not depends on the context and the situation in which the person finds himself/herself.
2. Students themselves were not tested directly; the data represent teacher perceptions only.
3. Rather than focussing on rates of literacy or illiteracy, most teachers specifically informed us that they preferred to deal with their students' literacy problems in constructive ways.

It is important to note that the population of students having literacy difficulties did not follow a normal distribution. Some schools and classrooms had few students with literacy problems; others had a much greater proportion of students with difficulties. An analysis was done to determine the degree to which literacy varied in different sized classes, across grades, and community size, and the degree to which literacy was affected by socio-economic status. The percentages of students having basic and critical literacy difficulties were weighted by class size; the weighting was warranted by the high significance of this factor (see Appendix E for details). Results were also weighted to allow each region's data to contribute its real proportion to the overall Canadian results.

Table 3.1 exhibits the high relationship of literacy problems, most particularly at the basic competence level, with small classes: teachers who had classes of 15 students or fewer indicated that 38 percent of the students had problems; those with larger classes said 17 percent had problems. This may be a reflection of the fact that schools have placed students with difficulties together into smaller classes. The difference for students with critical difficulties was not significant--14 percent of those in smaller classes and 12 percent of those in the larger classes.

TABLE 3.1: LITERACY DIFFICULTIES IDENTIFIED BY TEACHERS AS A PERCENTAGE OF ONE CLASS, BY CLASS SIZE

STUDENT ENROLMENT	% STUDENTS WITH LITERACY DIFFICULTIES	
	BASIC	CRITICAL[1]
1-15	38%[2]	14
>15	17	12

[1] Students identified with critical literacy difficulties.

[2] Table D-3, Appendix D, shows the ranges of percentages are significantly different for basic literacy for these two categories of class size at the 5% significance level.

When literacy problems are examined within grade levels, it would appear that teachers recognized similar proportions of students with basic literacy problems up to Grade 9, but saw a significant drop in Grades 10 to 12. It may be that by Grade 10, many of the students with problems have reached the school-leaving age and dropped out. The highest incidence of critical literacy problems was reported at the Grades 4 to 6 level, then decreased in Grades 7-9 and 10-12 (see Table 3.2).

TABLE 3.2: LITERACY DIFFICULTIES IDENTIFIED BY TEACHERS AS A PERCENTAGE OF ONE CLASS, BY GRADES

	K-3	4-6	7-9	10-12
BASIC	19%	21	19	13*
CRITICAL	10	15	13	11

*Table D-4 in Appendix D shows the ranges of percentages are significantly different for these grades at the 5% significance level.

An analysis of literacy difficulties in relation to the size of the community reveals no appreciable difference in the proportion of students with literacy problems in communities under 20,000 compared with those 20,000 and over (see Table D-5).

In relation to the students' background, teachers reported more literacy problems in schools with higher proportions of students from low socio-economic (SES) backgrounds, contrasted with schools which have a larger population of students from higher SES backgrounds (see Table 3.3).

TABLE 3.3: LITERACY DIFFICULTIES IDENTIFIED BY TEACHERS AS A PERCENTAGE OF ONE CLASS, BY SOCIO-ECONOMIC STATUS

SES*	BASIC	CRITICAL
LOW	23%	14
MIDDLE	18	11
HIGH	15	11

*The principals reported the proportions of students perceived to be coming from low, middle and high SES families, and an overall score was calculated per school based on these proportions (see Appendix E for more details.)

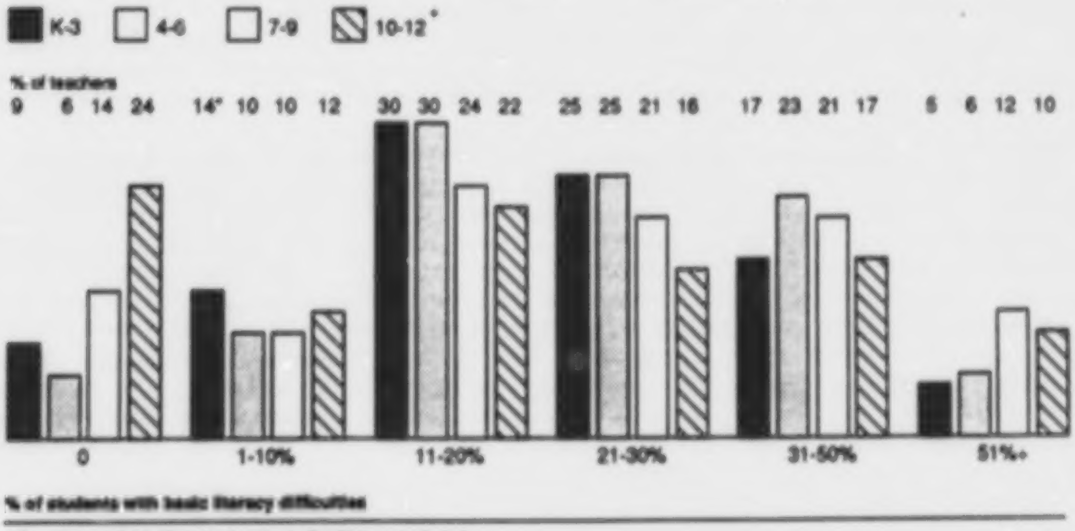
Many teachers were conscious that the low socio-economic background of their students was related to their difficulties at school.

> So much is dependent on the socio-economic level of a student. Kids who lack literacy are often from lower socio-economic backgrounds.... Many of my students who have difficulty achieving in general...need to have part-time jobs to help pay their way.
> (Grades 12-OAC Technological Studies teacher, Ontario)

In the schools designated as having a low socio-economic status (SES), almost one quarter (23%) of the students were identified with basic literacy problems. For schools with more families of middle income status, teachers said 18 percent have basic difficulties and for higher status schools, 15 percent. These differences were at the 5% significance level (see Table D-6). For students classified as having critical problems, a similar percentage was identified in both middle and high socio-economic status schools (11%). A slightly higher proportion of students from lower SES schools was identified with critical literacy problems.

In order to illustrate the variable proportions of students with basic difficulties by grade, breakdowns are shown in Figure 3.3. This figure depicts the percentage of teachers by grade reporting on students with basic literacy difficulties in a selected class. More teachers perceived that students with problems accounted for 11 to 30 percent of the students in that class. Figure 3.4 shows there are lower proportions of students with critical literacy problems than most teachers indicated for students with basic problems: greater percentages of teachers in all grades reported a concentration of students in the class with critical difficulties in the 0 to 20 percent range.

FIGURE 3.3: TEACHERS REPORTING PERCENTAGES OF STUDENTS WITH BASIC LITERACY DIFFICULTIES IN A RECENT CLASS, BY GRADE



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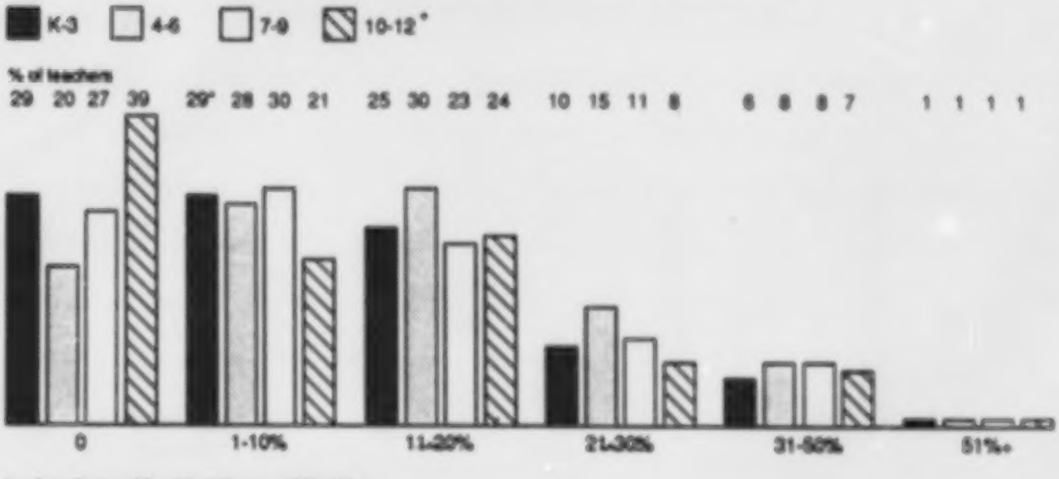
*Teachers of OAC (Ontario Academic Credits) are included.

* Fourteen percent of teachers in K-3 classes reported that from 1 to 10 percent inclusive of their students in a recent class had basic literacy difficulties.

FIGURE 3.4: TEACHERS REPORTING PERCENTAGES OF STUDENTS WITH CRITICAL LITERACY DIFFICULTIES IN A RECENT CLASS, BY GRADE

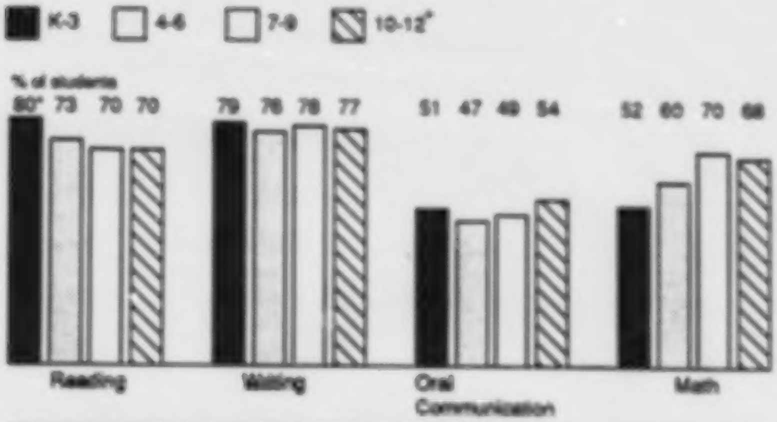


* Teachers of OAC (Ontario Academic Credits) are included.

° Twenty-nine percent of teachers in K-3 classes reported that from 1 to 10 percent of their students in a recent class had critical literacy difficulties.

Figure 3.5 shows the difficulty areas of students with basic literacy difficulties at each grade level. The largest proportions of them had reading and writing problems; the proportions ranged from 70 to 80 percent across the grades (see Figure 3.5). (The reader will recall that Kindergarten teachers were asked to consider reading and writing readiness rather than actual competence.)

FIGURE 3.5: PROPORTION OF STUDENTS WITH BASIC LITERACY DIFFICULTIES WHO HAD PROBLEMS IN READING, WRITING, ORAL COMMUNICATIONS AND MATH, BY GRADE



* Teachers of OAC (Ontario Academic Credits) are included.
* Of the students with basic literacy difficulties, 80 percent had difficulties with reading.

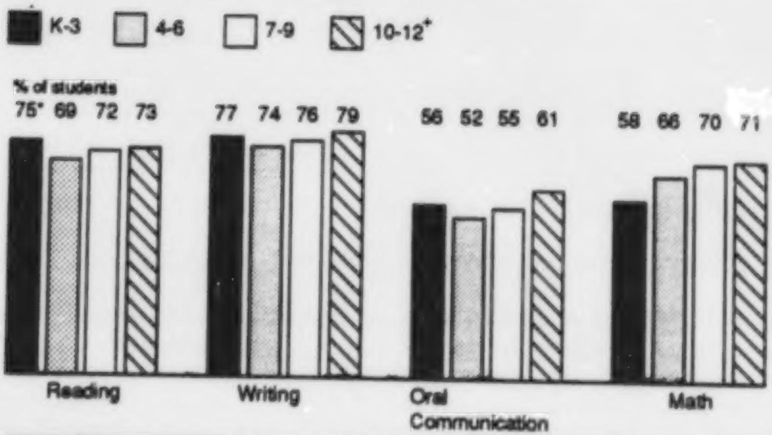
Numeracy difficulties were reported for a large proportion of students above Grade 3 (60% from Grades 4-6 and 70% and 68% from Grades 7-9 and 10-12). Mathematics continues to be a problem with which many students contend. Some teachers believed this was related to a fundamental problem with reading.

> It becomes more and more difficult for students to attain literacy. My students have a block against doing mathematics because they do not know how to read French.... There is a real demand for the proper training. They need someone to help them with reading all year long....
> (Translated--Grade 6 teacher, Québec)

Teachers reported fewer oral communication problems: the range was between 47 percent of students in Grades 4 to 6 and 54 percent in the senior grades.

With respect to critical difficulties, student patterns across grades and within the four literacy categories were similar to the patterns for basic literacy difficulties; reading and writing difficulties were reported for the largest percentages of students who had problems, oral communication for fewer but still a majority, and mathematics difficulties for an increasing proportion of students beyond Grade 3 (see Figure 3.6). From Grade 4 on, reading, writing, oral communication and mathematical problems at the critical literacy level increased slightly.

FIGURE 3.6: PROPORTION OF STUDENTS WITH CRITICAL LITERACY DIFFICULTIES WHO HAD PROBLEMS IN READING, WRITING, ORAL COMMUNICATION AND MATH, BY GRADE



+Teachers of OAC (Ontario Academic Credits) are included.
* Of the students with basic literacy difficulties, 75 percent had difficulties with reading.

After the teachers presented information about the number of students having literacy difficulties in their most recent class, and the type of difficulties they had, teachers were asked to focus on a single student in that class who represented students with literacy difficulties. (We will refer to these students as "selected students".) Over 80 percent of teachers reported that they were mainly basing their assessment of these students' literacy on observations of their performance in class. (See Table D-7, Appendix D). In Quebec, there is a tendency to rely slightly more on testing.

The genders of the selected students with difficulties in basic and critical literacy are presented in Table 3.4.

TABLE 3.4: SELECTED STUDENTS WITH BASIC AND CRITICAL LITERACY DIFFICULTIES, BY GENDER

GENDER	LEVEL OF LITERACY DIFFICULTY BASIC n	 %	 CRITICAL n	 %
Male	2956	70	2250	58
Female	1237	30	1615	42
Total	4193	100	3865	100

The higher proportion of boys compared with girls who, teachers report, have difficulties in basic literacy is consistent with the higher percentage of boys receiving low marks compared with girls at the secondary school level (King, 1986, p. 55; King, Warren, Michalski & Peart, 1988, data files; King & Peart, 1990, data files). Also, it has been reported that boys are identified more than girls as having learning difficulties (Maccoby & Jacklin, 1974). The unequal proportions narrow to some extent for students with critical difficulties, but teachers also identify substantially more males with higher-order difficulties.

Most of the selected students fall within the average age range for the grade reported--71% of those with basic difficulties; 76% of those were critical difficulties (see Table D-8 in Appendix D.) Only five percent were younger, and between one-quarter and one-fifth were older (24%--basic; 20%--critical). In Ontario, more than in any other region, there seems to be more of an attempt to keep students having literacy difficulties with their same-age peers. A much lower percentage of students is older (16% in contrast with 24%, 25% and 28% from west to east).

As an indicator of the students' socio-economic status, the teachers were asked to describe the parents' occupations of the students they selected with literacy difficulties. Some teachers could not do so and some skipped the question, but based on the responses of teachers who described the family background of the student selected, Table 3.5 indicates the highest level of occupation of one parent.

TABLE 3.5: PERCENTAGE OF SELECTED STUDENTS WITH LITERACY DIFFICULTIES, BY PARENTS' OCCUPATION

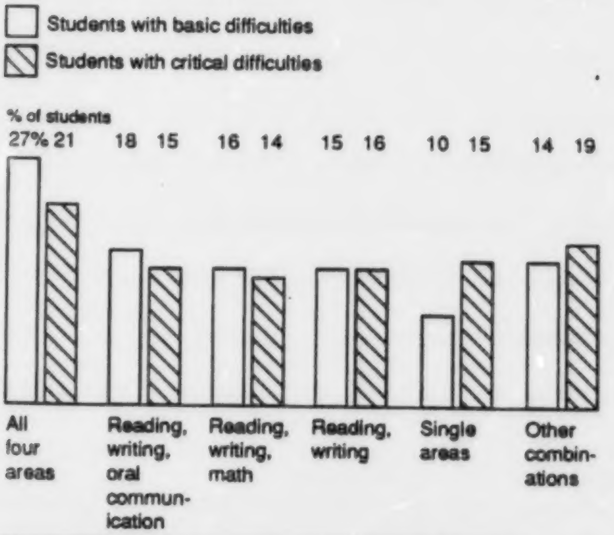
	LEVEL OF LITERACY DIFFICULTIES	
OCCUPATION OF PARENT*	BASIC	CRITICAL
Unskilled	33%	29
Skilled	21	23
White collar	6	7
Professional/executive	6	7
Unemployed	4	3
Other/don't know	30	31

*The occupational category of the parent in the higher status category was used.

Unskilled jobs comprise the largest single category for the parents of students with both basic and critical literacy difficulties (33% and 29%, respectively), followed by skilled (21% and 23%). Professional/executive and white collar, at 6% and 7% make up the smallest groups. The regional data showed significant differences. (See Table D-9, Appendix D.)

Figure 3.7 shows the areas of difficulties encountered by the selected students. Substantial proportions of the students had difficulties in all four areas--reading, writing, oral communication and mathematics (27% of the students with basic and 21% of those with critical literacy difficulties). Although reading and writing appear to be the only areas of difficulties for 15 percent of the students with basic difficulties and 16 percent of those with critical literacy difficulties, when considered in combination with the other deficiencies, reading and writing are problems for the great majority of selected students. Also, the range of literacy difficulties experienced by some students is probably greater than reported here since some teachers could not comment on the difficulties their students had in an area other than the teacher's subject; for example, English teachers preferred not to comment on students' problems in mathematics.

FIGURE 3.7: STUDENTS (SELECTED) WITH LITERACY DIFFICULTIES BY TYPE(S) OF DIFFICULTY



The selected students' difficulties in the literacy areas--reading, writing, oral communication and mathematics--followed the same patterns as in the overall class analysis discussed earlier. (See Figure 3.5, p. 47 and Figure 3.6, p. 48 for patterns discussed and Table D-10 in Appendix D for information on selected students.)

The regional analysis showed statistically significant differences in oral communication difficulties for students with critical literacy problems. Seven percent fewer Quebec teachers compared with those in other regions perceived that their selected students had difficulties in oral communication. (See Table D-10, Appendix D.) In fact, oral communication was seen as a strength with students having both basic and critical literacy difficulties by over two fifths of the teachers in all regions. Interestingly, mathematics was seen as a strength as well by approximately one-third of the teachers in all regions. (See Table D-11, Appendix D.)

E. FACTORS AFFECTING LITERACY DEVELOPMENT

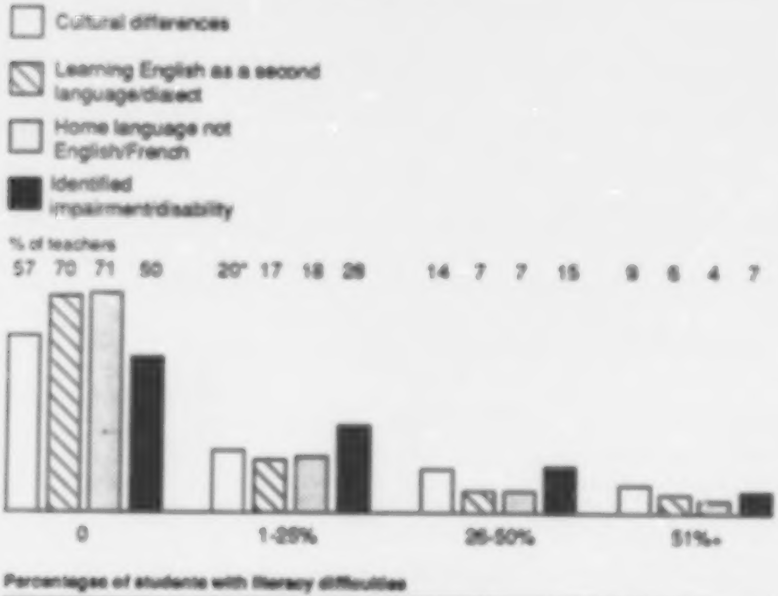
What affects the literacy development of our students? How do literacy difficulties develop? A Grade 3 teacher from Newfoundland offers her perspective:

> Children come to school for their first year at age 5 in various stages of development (almost as many stages as there are children). They are placed in classrooms and are presented with a program. They are expected to achieve a mastery of the different concepts by the end of the year. Of course, some of the children (let's face it) are more superior intellectually than others. Some children have received a superior background education than others before coming to school. Some of the children have never had a book read to them (believe it or not) before entering kindergarten. So they complete their kindergarten year and go on to the next class where the program becomes a little more involved. Each year the language program, naturally, becomes more and more indepth. Each year those children (who are from deprived home environments or who are at lower ability levels or, for some other reason, maybe lack of individual attention at school, do not master necessary concepts in their first school years) fall farther and farther behind their more "fortunate" classmates. They become frustrated with their language program because they are now unable to do the work at their grade level.

Teachers' views on the factors that negatively affect their students' literacy were obtained through both closed and open-ended questions. We analyzed their responses concerning all students who had literacy difficulties in their most recent class as well as the selected student chosen to represent others with such difficulties.

The relationship of literacy problems with such factors as cultural and linguistic background (different from the majority group), learning disabilities and special class placement has been documented in the literature (e.g., Gilliss, 1988; International Seminars on Literacy, 1987; Pallas, Natriello, & McDill, 1989). That information, consistent with that received from teachers during the cross-Canada interviews, was used for the design of the closed-response items on the questionnaire. Teachers were asked for the numbers of students whose literacy development was affected by cultural differences, speaking/hearing a language other than English at home, learning English-as-a-second-language or dialect (ESL/ESD) and/or by a formally identified impairment or disability. Figure 3.8 shows the teachers' perceptions of the proportions of their students affected by cultural differences, learning ESL/ESD, having a home language other than one of the official languages and an identified impairment or disability.

FIGURE 3.8: ***TEACHERS REPORTING PERCENTAGES OF STUDENTS WHOSE LITERACY IS AFFECTED BY VARIOUS FACTORS***



* Twenty percent of teachers reported that for between 1 and 25 percent of their students with literacy difficulties, these difficulties were affected by their cultural background.

In many cases, these factors are interrelated. According to the teachers, they affect the literacy development of a substantial proportion of Canadian students. Almost one quarter of teachers believed that cultural differences affected the literacy of 26 percent or more of the students with difficulties in their classes. (As many as nine percent of the teachers believed so of over half of those students.) Over one-fifth reported that an impairment or disability affected over one quarter of the students with difficulties. Thirty percent of teachers indicated that learning ESL/ESD affects the literacy of their students having problems: thirteen percent of these teachers believed that more than one quarter of their students with difficulties were affected in this way. Eleven percent of teachers believed that over one quarter of their students with basic literacy difficulties had their literacy development adversely affected by the fact that a language other than English or French was spoken at home.

In some urban centres of Canada, English is not the first language for large numbers of students. For example, a 1987 Toronto Board of Education secondary student survey (Cheng, Tsuji, Yau, & Ziegler, 1989) revealed that one third of the students did not speak English as their mother tongue. Another survey, carried out by the Vancouver School Board, found 47 percent of the District's student enrolment to be designated as eligible for ESL (Reid, 1988), and Vancouver teachers judged that twelve percent were receiving less language assistance than they required.

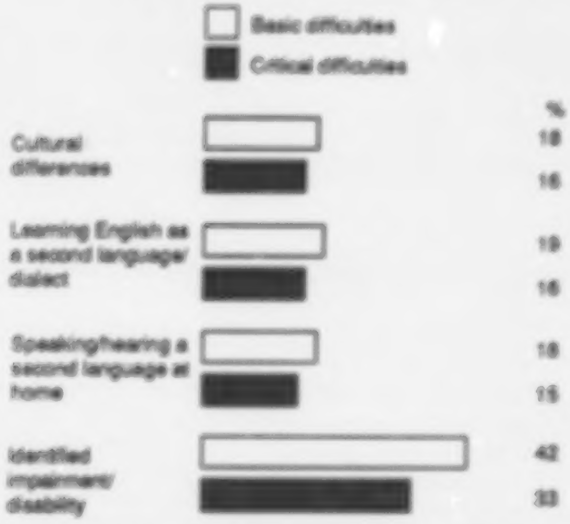
> In some ways it seems silly to be talking about their [New Canadians'] literacy or lack of it. I mean, what do you expect them to have? Yet on the other hand, we can't ignore them because they present a real problem--a real challenge for teachers.
> (Grade 3/4 teacher, British Columbia)
>
> Parents of newly arrived students often have a problem relating to the child, and this does not help the students' learning process.
> (Grade 9 ESL/ESD teacher, Ontario)

In addition to the concern about young New Canadians, teachers also stressed the importance of ESL programs for native Indians:

> We don't have enough ESL for Indians. We have mostly Special Ed. people, but often it's "language interference" and not a learning disability [that is the problem].
> (Coordinator for Indian Education, British Columbia)

A further examination of factors affecting literacy development was carried out by asking teachers about the selected students having literacy difficulties. The findings reinforced the significance of cultural and linguistic differences and, especially, the presence of an impairment or disability which can affect literacy acquisition. (See Figure 3.9.)

FIGURE 3.9: STUDENTS (SELECTED) WITH LITERACY DIFFICULTIES, BY FACTORS AFFECTING LITERACY*



* Each item should be considered separately as teachers may have reported that more than one category applied to a student; in many cases, a student did not fall into any category.

Cultural differences were seen to affect the literacy of 18 percent of the selected students with basic difficulties, learning ESL/ESD to affect 19 percent and an identified impairment/disability, 42 percent. The proportions of students with critical difficulties judged to be affected by these factors are somewhat lower.

The regional data on speaking neither official language at home show some significant differences. (See Table 3-6.) In Ontario and the West about one quarter of the students with basic difficulties and one fifth of those with critical literacy problems speak languages other than English at home. These proportions change somewhat for Quebec where responses were based on languages other than French--19 percent of students with basic difficulties and 13 percent of those with critical difficulties. There is a drastic difference, however, between the Atlantic provinces' data and those in other regions. Only six and five percent, respectively, of students having basic and critical literacy difficulties in the Atlantic provinces speak a language other than English at home. It would appear that teachers do not see this factor as a major contributor to literacy problems in Atlantic Canada. This follows logically from the fact that the Atlantic provinces receive fewer immigrants than other provinces: in 1989, only 1.6% of immigrants settled in the Atlantic region (Employment and Immigration Canada, 1990).

TABLE 3.6: STUDENTS WITH LITERACY DIFFICULTIES WHOSE LITERACY IS AFFECTED BY SPEAKING A LANGUAGE OTHER THAN ENGLISH (FRENCH) AT HOME, BY REGION AND ACROSS CANADA

	LEVEL OF COMPETENCE DIFFICULTY			
	BASIC		CRITICAL	
	YES	NO	YES	NO
Western Canada	24%	76	21	79
Ontario	26	74	21	79
Quebec	19	81	13	87
Atlantic Canada	6	94	5	95
Canada	19	81	16	84

$p<.01$

Current statistics reported by the Learning Disabilities Association of Canada, indicate that as many as 30 percent of those considered illiterate may have learning disabilities (cited in Canadian Child Welfare Association, 1990). In this study 42 percent of the teachers who selected a student having basic literacy difficulties reported that the student had been formally identified as having an impairment or disability. The analysis of the selected students with an identified impairment/disability revealed that a learning disability was indicated in over one half of the cases of those students with both basic and critical difficulties (see Table 3.7). Some teachers emphasized the fact that they had many students with learning disabilities in their classes:

> I teach mostly learning disabled students. In order for these students to become literate, we will need to see many changes in the education system--changes in attitudes of teachers, changes in the evaluation of programs in schools and changes in how the courses are taught.
> (Elementary teacher, Newfoundland)

TABLE 3.7: STUDENTS (SELECTED) WITH IDENTIFIED IMPAIRMENT/ DISABILITY*, BY IMPAIRMENT/DISABILITY (IN %)

	STUDENTS WITH DIFFICULTIES	
	BASIC	CRITICAL
Visually impaired	3%	2
Hearing impaired	7	10
Emotionally/behaviourally disturbed	12	14
Mentally handicapped	6	4
Learning disabled	56	52
Combination	8	9
Other (e.g., physically disabled, attention deficits)	8	9
Total	100	100

*Percentages of selected students with an identified impairment or disability were 42%--basic (n = 1,588) and 33%--critical (n = 1,276)

In an open ended item, teachers were asked to provide any factors, other than cultural, ESL/ESD and an identified impairment or disability, which they believed affected their selected students' literacy development. A small sample of their responses (500 surveys) was content analyzed. Table 3.8 identifies those "other" factors that teachers named most frequently for students with basic and critical difficulties.

TABLE 3.8: ADDITIONAL FACTORS[*] TEACHERS REPORTED AS AFFECTING THE LITERACY OF SELECTED STUDENTS

- Home environment
  - family instability
  - lack of resources/stimulation
  - lack of support/encouragement
  - low literacy/educational level of parents
  - low value placed on literacy/education in the home
- Social-emotional factors
  - low self-esteem
  - shy/withdrawn
  - behavioural problems
- Lack of early identification and intervention

[*] Other than cultural, ESL/ESD, and identified impairment or disability.

Of the additional factors offered by the teachers, the home environment, social-emotional factors and the lack of early identification and intervention were cited most often. Again, these influences were not independent. It would seem, though, that the more factors that come into play, the higher the risk that a child or youth will experience literacy difficulties.

> Many of our children come to school so burdened with the stress of worrying about their home life (e.g., fighting parents, inadequate food, lack of sleep, fear of physical and emotional abuse, inadequate clothing) that they cannot possibly absorb and retain the skills they need to become functionally literate.
> (Grade 2 teacher, Yukon)

> There are many factors involved here: broken homes (parents spend little time reading and speaking to their children), uneducated and illiterate parents, children who are abused--physically and mentally--children who are not fed properly and who lack proper sleep, parents who do not see the importance of an education and who pass this on to their offspring.
> (Grade 2 teacher, Quebec)

> I think literacy begins at an early age. We should place more emphasis on problems encountered at an early age and try to correct any problem.
> (Grade 2 teacher, Newfoundland)

In summary, teachers reported many factors which affect literacy development. Different cultural norms and values among social classes and ethnic groups outside the predominant anglophone or francophone group, learning a new language, having a disability, factors related to the home environment, the students' social-emotional problems, and failure of the school to identify when problems occur and take appropriate action to improve the situation all negatively affect the literacy of Canadian students. Teachers continue to strive for earlier identification and intervention. But which interventions and strategies are the most appropriate? Are sufficient resources available for identification and intervention? Teachers provide their views on these challenges in the chapter that follows. Going beyond what teachers expressed, it would seem that:

> Educators must become more aware of and involved in the family and community contexts of their students, both to understand the problems these contexts present for the education of students and to learn to draw on the strengths of families and communities to enhance the education of students.
> (Pallas, Natriello, & McDill, 1989)

Although teachers repeatedly commented on the need for more involvement from the parents of their students, only a few mentioned the school's need to become more in tune and involved with the students' homes in a cooperative and collaborative manner.

> Parents and caregivers need to be made aware of and given the opportunity to participate in early language development of their children.
> (Grade 3 teacher, Manitoba)
>
> We must encourage parents to expose their children to (good) books at a very early age. A home reading program should be set up in every elementary classroom. The program, involving parents, students and teachers, would be one that is positive, encouraging and fun.
> (Grade 2-5 teacher, Alberta)
>
> Parents have the greatest impact on the development of literacy. They must be educated in this area so that they do the best job possible.
> (Grade 5 teacher, Alberta)

One project, Parents-as-Partners Program (Shuttleworth, 1986), implemented in the City of York, Ontario, recognizes the positive contributions parents can make to literacy development. Some Canadian teachers reported experimenting with this approach, but we did not find it implemented on a wide-scale basis. This program involves parents in reading with their children, incorporated home visits and access to resources for pre-schoolers. The benefits of the program included:

1. Improved reading and literacy development, especially in the enjoyment of books.
2. Improved home and school relationship--changes in attitudes and perceptions on the part of both parents and teachers increased the cooperation and support for the child and the program.

3. Dramatically increased library circulation in both school and community libraries (p. 43).

F. TEACHER AND PRINCIPAL DEFINITIONS OF LITERACY

In this section we present the teachers' and principals' own definitions of literacy. Literacy means...

> the ability to read and write to a certain standard determined by the education system.
> (Grade 11 Social Studies teacher, B.C.)
>
> the ability to read and write above at least a Grade 6 level.
> (Grade 3/4 teacher, Alberta)
>
> being able to understand and cope with a particular job situation or life style. A person who is very literate in the medical field may be quite illiterate in agricultural areas.
> (Special Education teacher, Saskatchewan)
>
> the ability to function in reading, writing, oral communication and expression to the point where normal life skills (cooking, travelling, reading to your children, etc.) can be done with ease.
> (Grade 7 English teacher, Nova Scotia)
>
> the skill necessary to experience a meaningful interaction with printed language, such that thought processes are evoked while receiving the printed message or sending the printed message.
> (Grade 4 teacher, Ontario)
>
> being able to read, understand, react to reading, and being able to write, express oneself, develop ideas.
> (Grade 3 teacher, P.E.I.)

As previously explained, in responding to questions about their students' literacy, teachers referred to the literacy guide given in the questionnaire. Later in the survey they were asked to supply their own definitions. As well, principals were asked for their definitions of literacy in their brief questionnaire. The examples shown above are representative of the meanings both teachers and principals ascribed to literacy. Generally, the definitions fell into three categories. The first is characterized by its absolute nature; that is, definitions invariably mentioned a set standard or criterion, such as the completion of a certain grade in school. A minority of teachers and principals believed that literacy had an absolute standard. The first two examples illustrate this definition. The second and the most popular definition given was functionally-oriented. The third and fourth examples show how the functional definition emphasizes the performance of tasks or general functions necessary for "survival" in society. Thirdly, as illustrated by the fifth and sixth examples, definitions by a small proportion of teachers focussed on skills beyond the basic level to include more complex thought processes.

Teachers' and principals' definitions included a wide array of communication modes: listening, speaking, writing, computing (mathematics), visual arts, technology. However, reading and writing were mentioned most frequently.

It appears that teachers and principals vary considerably in how they define literacy. But most of them have adopted a functional definition similar to that offered by the Canadian Teachers' Federation's policy on functional literacy:

> Functional literacy involves using and responding to printed and written information to function in society. Those who are functionally literate are able to
>
> - read and interpret prose of the type found in newspaper articles, magazines and books
> - identify and use information contained in documents such as forms, tables, charts and indexes
> - apply numerical operations to information contained in printed material such as a menu, chequebook or advertisement
>
> (CTF pamphlet, Policy on Functional Literacy)

One teacher rationalized the functional definition.

> If you use the Unesco definition of less than Grade 9 education, then one in six Canadians is illiterate. That implies somehow that they are totally incompetent. We know that's not true. We know that they can get along in the world. They just haven't got that amount of education.... Being able to read and write well enough to get along in society...be a labourer...how much does a labourer need? They need to know how to fill out a form to get a job. To me that's as literate as they would have to be to get along in society. I know lots of people with a grade five education who get along.... I think it is related to the kind of job you have or would like to attain.
> (Grade 11 History teacher, Nova Scotia)

The fundamental question that arises, however, is what are the effects of the particular views of literacy held by teachers?

Kirsch and Guthrie (1978) discuss the problems inherent in defining literacy as attainment of a prescribed educational level or reading at a particular grade level. The variation among persons reaching certain grade levels, as well as the lack of evidence that reading performance at even an eighth grade level ensures successful performance of everyday reading tasks, indicates that students deemed literate in the eyes of some teachers are encountering difficulties when faced with the demands outside of school.

Wells (1987) takes issue with the functional conception of literacy pointing out the possible deleterious effects:

> ...an emphasis on the functional level is now being widely proposed as a solution to the problems encountered in school by many children from minority and low social class groups. The grounds are that such an emphasis is in the children's best interests in preparing them to cope with the demands which they are expected to meet in the wider community outside the school...I believe that such a proposal is misguided, for in denying these children the opportunity to become fully literate, it can only serve to perpetuate the existing disadvantages experienced by these groups. (p.121)

De Castell, Luke and MacLennan (1986) warn that breaking literacy into specific competencies required in various real-life situations (e.g., on the job) ignores the culture-bound nature of literacy and does nothing to facilitate "second-order" (p.10) competencies.

Tierney and Rogers (1986) did find that literacy development based on "functionally-rooted logic" (p.127) was effective in promoting the use of a wider range of cognitive strategies in Grade 3 students. The functions of the activities in which students were engaged, however, were not prescribed activities with an assumed purpose but were relevant to the situations of the students. The teacher provided opportunities (e.g., teacher-student conferencing, students sharing their reading and writing experiences with each other) that allowed the students to explore their own reading and writing purposes and have control over the process and product. Bloome (1986) stressed the importance of using reading and writing activities in which students accomplish personal and community goals. In this way students whose cultural and linguistic backgrounds differ from the mainstream are engaged in activities that are meaningful to them and serve their communicative purposes. A teacher's conception of literacy can affect the literacy development of students in that it influences the learning environment and learning activities that are provided. Bloome (1986) explains that:

> The new views of reading and writing offered by researchers suggest that building literacy is not just a question of magnitude but more importantly of definition, use, and community. (p. 75)

Teachers have identified the diversity of students' backgrounds and needs encountered in the classroom. If teachers are to provide the kind of learning opportunities that can accommodate such diversity, some teachers require a better understanding of the complex nature of literacy and the relationship of literacy building to learning activities and instructional practices. In the words of teachers:

> The students are able to decode words but not to make the connections, to analyze to make inferences. All teachers should be working towards improving students' ability to do these more complex things.
> (Translated--Grade 7 teacher, Québec)
>
> Schools must begin to look at the global problem they face so they may provide a stimulating and interesting place of learning.
> (Grade 10 Economics teacher, Quebec)

I feel we have emphasized "subject matter" and "content" too heavily in our schools--especially in the elementary years. Literacy for me in its broadest sense would be to create a desire in all our students to continue and expand their present knowledge base. Learning should be fun and forever. I see the "process" of learning to be more important than rote memory of knowledge. (Kindergarten teacher, Saskatchewan)

Overall, literacy will not improve for some students until we can provide material and content relative to their own lives.
(Grade 12 History teacher, Ontario)

CHAPTER IV

STRATEGIES TO DEVELOP LITERACY

A. INTRODUCTION

Literacy development reflects, in part, the quality and appropriateness of instructional practices and interventions. This chapter is devoted to presenting and discussing the actions, strategies and human resources used and recommended by teachers in their efforts to facilitate the literacy development of students having problems. The practices that teachers found effective in promoting the literacy of students with basic difficulties were the primary focus of the survey; the length of the questionnaire precluded an indepth look at practices used with students having critical difficulties. Teachers were, however, asked to comment briefly on approaches found to be effective in promoting the literacy of those students with critical difficulties and these have been included.

Also described are principals' reports of initiatives taken in their schools and their ways of assessing that teachers are promoting literacy development in their students.

We begin by exploring the instructional strategies and supports that teachers identified as positively influencing the literacy development of Steve, Joan and Peter (the case histories begun on page 31 in Chapter III).

B. CASE HISTORIES

Steve (a Grade 2 student--9 years old)

Steve's teacher exposed all her students to language-enriching materials and provided lots of opportunities for independent reading with self-selected materials. Plenty of time was also available for students to discuss their reading experiences. She provided a classroom library full of books that were interesting to her students and that would encourage them to like to read.

The language-experience activities were found to work well with Steve--he wrote about the things he was familiar with. His teacher felt that part of the reason he continued to enjoy books, even though he was unable to read, was that the classroom focus was on interacting with reading materials rather than just decoding words. She reported that Steve progressed in reading and stressed the importance of focussing on the progress rather than being frustrated over that which was not achieved.

Joan (a Grade 6 student--11 years old)

Joan's teacher used more traditional approaches (e.g., lecture, teacher-led questioning, individual seatwork) as well as cooperative learning and teacher-student conferencing. Each day his students were involved in writing activities and were given opportunities to read both materials of their choice and those which were teacher-assigned. He described his approach to language teaching as a combination of whole language and skills-oriented. He was in the process of taking whole language courses.

The teacher referred Joan to a counsellor due to her "attitude problem." This, in addition to contact with the home/school liaison and her foster parents, and interaction with special education and learning assistance personnel, were of help to the teacher in assisting Joan to overcome some of the difficulties she experienced. He would have liked to have had the assistance of a classroom aide. Whole language, cooperative learning, project work, writing activities (e.g., journal writing) and one-on-one attention were identified as useful strategies in working with Joan.

> ### Peter (a Grade 11 student in a pre-university History course--16 years old)
>
> Peter's teacher, formerly an elementary teacher, stated that she was not text-book oriented. She continually searched for "user-friendly" materials and encouraged her students to use a wide variety of resources in researching self-selected topics. Peer editing and teacher-student conferencing were used to assist the students with the writing process. Her department was making an effort to incorporate teaching strategies used successfully at the elementary level.
>
> When Peter's teacher became aware of his writing problems, she assured him that they would work together to get around the difficulties. She approached his parents who, as a result, bought Peter a computer. Use of the word processor eliminated the illegibility problem. The special education teacher was also approached but her assistance was not available as Peter had not been formally identified as exceptional. The teacher, together with Peter's English teacher, collaborated to do what they could to assist him. The teacher devised a system whereby the students wrote essays on topics of interest to them and then orally presented the ideas to her. Through this process the teacher was able to offer suggestions as well as evaluate the learning that had taken place. The written/oral method of evaluation helped Peter feel comfortable in the class and pass the course but his teacher reported that his marks would not be high enough for entrance into university. She described his predicament succinctly: "Too much, too late, too little time."

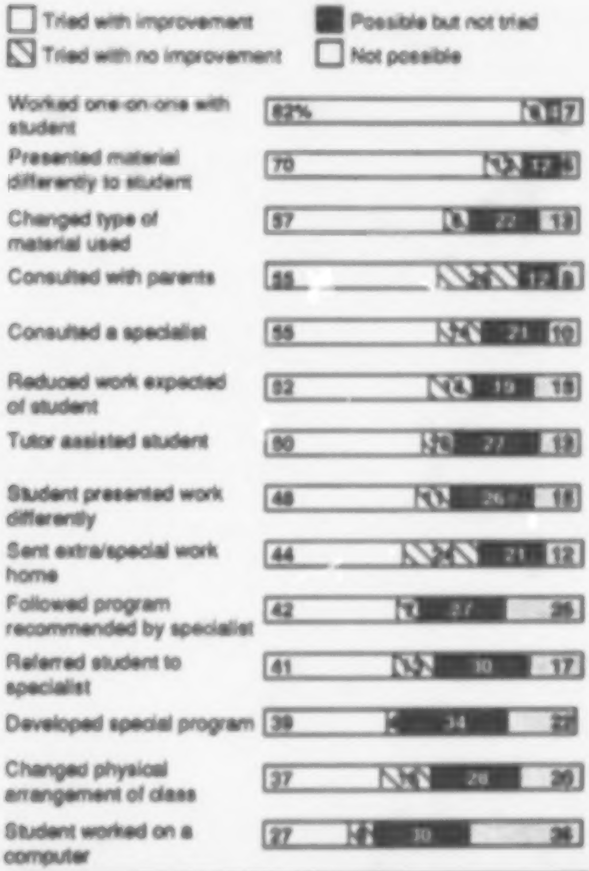
Because most students spend at least some, if not all, of their school day in a regular classroom, we were interested in not only the "special" approaches that teachers use and find helpful but also the strategies and resources that teachers use with the class as a whole and find effective in helping the students having literacy difficulties.

C. ACTIONS

In this section we consider in a general way the actions taken by teachers to assist them in promoting the literacy of their selected students with basic difficulties. Teachers were asked to indicate actions taken and rate their effectiveness. Strategies and human resources will be examined more closely in sections that follow.

Figure 4.1 illustrates the degree of effectiveness teachers assigned to actions they had tried, and reports those actions possible to undertake but not tried, as well as those that were not possible.

FIGURE 4.1: ACTIONS TAKEN WITH STUDENTS (SELECTED) HAVING BASIC LITERACY DIFFICULTIES (% OF TEACHERS)

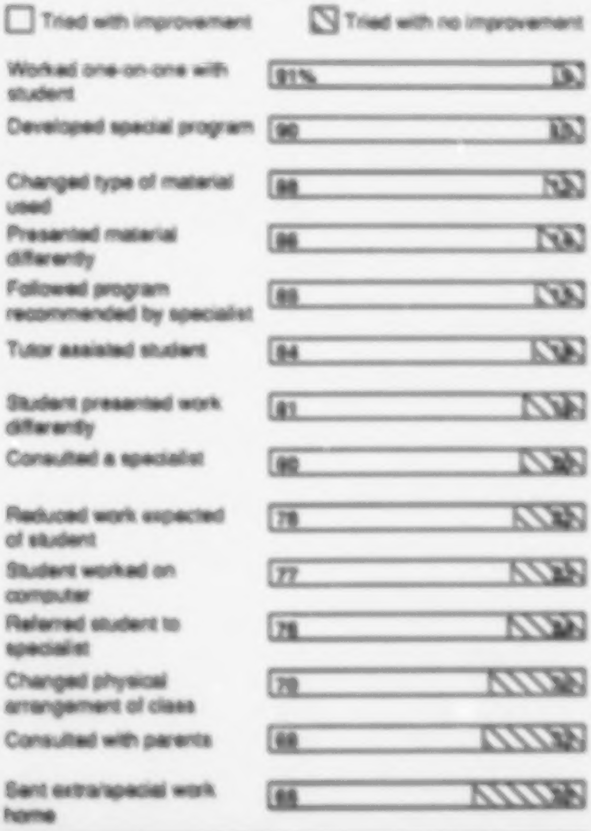


The two actions that stand out as having been tried and effective are "worked one-to-one with student" (82%) and "presented material differently to student" (70%). The teachers provided many examples of strategies they used in presenting material differently and providing individual attention to students: verbal help in exams, multicultural materials, presentations by community members of the same ethnic background as students, experiential learning activities, teacher-student conferencing, peer and cross-age tutoring, cooperative learning, improvisational drama and storytelling, use of manipulatives, a wide variety of audio-visual materials, journal writing, use of thematic units, and a focus on the student's interaction with others. These are but a few examples of those actions taken to accommodate the variability of student needs and learning styles and which emphasize the flexibility, expertise and training required of teachers to meet student needs.

The actions that the highest numbers of teachers reported as not being possible were "student worked on a computer" (36%), "followed program recommended by specialist" (25%) and "developed special program [for the student]" (22%). It is interesting to note those approaches which were possible for many teachers but not tried; for example, "developed a special program [for the student]" (34%), "computer work" (30%), "referred student to specialist" (30%), "changed physical arrangement of class" (28%), and "tutor assisted student" (27%).

Figure 4.2 is based on an analysis of the responses from teachers who indicated they had taken a particular action. "Worked one-on-one with the student" and "developed a special program [for the student]" were perceived by most teachers who tried them (91% and 90% respectively) as leading to improved literacy. All fourteen of the actions presented to teachers for their responses were identified by at least 65 percent of those who took the action as being effective. However, "changed the physical arrangement of the classroom," "consulted with parents to obtain their help" and "sent extra/special work home with students" were said to be ineffective with the selected students by one third of the teachers who employed these methods.

FIGURE 4.2: EFFECTIVENESS OF ACTIONS TAKEN WITH STUDENTS (SELECTED) HAVING BASIC LITERACY DIFFICULTIES (% OF TEACHERS)



These findings indicate that many successful courses of action can be taken to assist students with literacy difficulties. Teachers' comments, both on questionnaires and during interviews suggested that often some actions are not taken because: (1) appropriate and relevant resources may be neither available nor accessible, and (2) some approaches are not able to be implemented because of structural constraints (e.g., time scheduling, class size), and lack of training. Teachers attested that certain changes are necessary in order for them to take actions they see as helpful in building literacy:

> On a one-to-one basis, many students could accomplish great things. Until we give teachers freeway to try new techniques, do a lot of visiting and change the basic "classroom" structure of our schools, this will not occur.
> (Secondary level teacher-librarian, Ontario)
>
> Funding for these areas in every school: a full-time remedial teacher, a full-time learning disabilities teacher, a full-time school librarian and reduced class size.
> (Grade 6 teacher, Nova Scotia)
>
> In the past I used to have 23 or 24 students and 50 minutes to teach which left me time to mark. Now I have 24 periods a week of 75 minutes. I have classes of 31 to 32 students. There is no way I can correct 130 French compositions that take 30 minutes each. I asked for 30 dictionaries and I still haven't received them.... Sixty percent of the library books are obsolete.... The problem is with budgetary constraints and the teacher/pupil ratio.
> (Translated--Grade 10/secondaire IV French teacher, Québec)

Situations without such hindrances were also described:

> From K-9 we have multi-grade classrooms. The only advantage we have as teachers is our class size (8-12 students per classroom). This allows for much individual attention. We utilize this to the fullest.
> (Grade 9-12 Mathematics teacher, Newfoundland)

> I have parents come to work in the classroom (not necessarily with the student having basic difficulties), use writing topics and reading materials related to the student's real, personal interests, avoid readers [texts], worksheets, etc. and use a computer for writing activities.
> (Grade 2 teacher, B.C.)

Teachers were asked to comment briefly on the approaches and resources that they have found to be effective in promoting the literacy of students having critical competency difficulties. The responses given on a sample of 500 surveys were content analyzed and coded into common categories. Working and/or conferencing with students on a one-to-one basis was mentioned most often by teachers; the incorporation of a wide variety of materials and altering the method of presentation were also cited frequently. Other recommended approaches included: cooperative learning, peer tutoring/editing/evaluation, teacher and/or student reading and writing strategies, giving students choices (e.g., materials, and topics/themes to ensure relevance to the individual), working with a specialist to design a program or choose an approach appropriate to the student's needs, whole language, specific attention to social-emotional factors, teaching thinking skills/strategies, collaboration with parents and more traditional approaches (seatwork, practice and drill, review).

D. STRATEGIES

In this section, we use the term "strategies" to refer to more specific instructional practices, including methods, approaches and student groupings used.

1. Strategies Used with the Whole Class

One teacher commented on how he assists his students with the reading process:

> My theory is that students are not read to enough. I read a lot to my students while they follow along. If they have such trouble reading that it puts them off, they don't get the enjoyment out of the story, then with my reading...they follow along, they see the words, they see the spelling; difficult words I explain as we go along.... If that were done more at the elementary and junior high level, they'd be better readers.... Of course, it should start earlier with the parents...Peter Rabbit went into Mr. McGarrity's garden...running their fingers along the page as the child sits at the edge of the bed.... Some people say "you're doing all the work". I don't see it like that.
> (Grade 10 English teacher, Nova Scotia)

A Grade 1 teacher commented on her strategy for developing literacy:

> For the Grade 1 children, by November, they all know letters, most know sounds and they can see the relationship between the picture and the words. For those who cannot, I teach the relationship. If they want to write their own story they can use inventive spelling. They can try to sound the words out and they can look at the charts for the common words like "and" and colours.
> (Grade 1 teacher, Ontario)

Teachers were asked to identify the frequency with which they used a wide variety of teaching strategies with the class as a whole and then to choose three strategies they considered to be the most effective and three which they felt were the least effective in promoting the literacy development of students having basic literacy difficulties. Table 4.1 summarizes those strategies teachers used most frequently with their classes. (Table D-12 in Appendix D presents all of the strategies and their frequency of use.)

TABLE 4.1: SELECTED TEACHING STRATEGIES/APPROACHES, BY FREQUENCY OF USE

STRATEGIES/APPROACHES	AT LEAST TWICE/WEEK	2-3 TIMES/MONTH
All teachers: (n=4038)[*]		
Teacher-led questioning and class discussion	93%[**]	5[**]
Lecture/teacher presentation/ demonstration	90	6
Review of content previously taught	86	11
Seatwork involving practice and drill	84	8
Oral reading by teacher	73	13
Silent reading by students (teacher assigned)	67	15
Silent reading by students (self-selected, self-sustained)	63	11
Oral reading by students	63	16
Student writing (process, activities, publishing)	52	21
Teacher conferencing with individuals	51	22
Cooperative learning activities/ group work	48	29
Art/music	48	15
Elementary teachers only: (n=2644)[*]		
Thematic unit work	76	11
Reading group activities	76	11
Shared reading experiences	65	21
Manipulative experiences	63	20
Assisted reading (e.g., read along, echoic)	53	17

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[*] Average number of respondents to items listed.

[**] The remainder of the teachers used the strategy less frequently or not at all. All percentages and less commonly used strategies can be seen in Table D-12 in Appendix D.

With regard to those strategies used by teachers at least twice a week, it is clear that the majority of teachers use traditional, teacher-directed methods most often. Ninety percent or more of teachers said they used "teacher-led questioning and discussion" and "lecture/teacher presentation/demonstration" a minimum of twice weekly; at least four fifths of teachers used "review of content previously taught" and "seatwork involving practice and drill" that often. Strategies considered more student-centred were implemented with the same frequency by far fewer teachers: e.g., "teacher conferencing with individuals" (51%), "cooperative learning activities/group work" (48%), "project work (individual or group)" (21%), "student presentations/debates/panels" (7%--secondary teachers only), "student accessing resources (e.g., indexes, periodicals, data bases"--14%). (See Table D-12 in Appendix D).

Those strategies which specifically included either reading or writing were employed at least twice a week to a widely varying degree--by between approximately one fifth and three quarters of the teachers: "writing/learning on computer" (22%), "student writing (process, activities, publishing)" (52%), "oral reading by students" (63%), "silent reading by students (self-selected, self-sustained)" (63%), "silent reading by students (teacher-assigned)" (67%), "oral reading by teacher" (73%). Other "reading" or "writing" strategies presented only to elementary teachers were used at least twice a week in classes by approximately one half to three quarters of teachers: "assisted reading" (53%), "shared reading experiences" (65%) and "reading group activities" (76%). Again, the more traditional approaches (e.g., reading group activities) were the most popular used in classes as a whole.

It is interesting to note in Table D-12, Appendix D, the strategies never used in many classes: "writing/learning on computer" (47%), "student media productions" (65%), "community-based activities/ excursions" (29%), "student accessing resources" (29%), "drama/role play" (28%) and "art/music" (26%).

During the interviews, teachers commented on their need to learn more about the use of computers to develop literacy, some lamented that there is a dearth of suitable software for literacy development, while others expressed resentment that so much of the school budget is spent on computers.

> I would love to see those machines trashed and class sets of books appear in my classroom....
> (Grade 10 English teacher, Nova Scotia)

We were interested in seeing if differences in the use of the various strategies existed across the grade levels. Table 4.2 (and the corresponding Tables D-13 and D-14 in Appendix D) indicate that the trend for teachers to prefer teacher-directed strategies is consistent across the grade levels. Furthermore, the frequency of using student-centred approaches decreases as the grade level increases. For example, about two thirds of primary teachers (65%), one half of junior teachers (51%), two fifths of intermediate teachers (40%) and one third of senior teachers (34%) said that they conference with individuals at least twice per week. A considerable decline in the numbers of teachers using those "reading" and "writing" strategies presented to both elementary and secondary teachers also occurred as the grade level increased. This decline is partly explained by the substantial numbers of Mathematics, Science and Practical Arts teachers who do not incorporate many reading and writing strategies in their courses. While student writing occurs in 69 percent of K-3 classrooms and 64 percent of Grades 4-6 classrooms at least twice per week, only 35 percent of 7-9 teachers and 20 percent of senior teachers indicated this. Similarly, over one quarter of primary teachers (26%) have students writing and learning on a computer twice a week or more but only nine percent of senior teachers incorporate this instructional strategy that often.

TABLE 4.2: TEACHERS' FREQUENCY OF USING SELECTED STRATEGIES/APPROACHES (% OF TEACHERS)

Strategies/Approaches	At least twice/week				2-3 times/month			
	K-3*	4-6*	7-9*	10-12*	K-3	4-6	7-9	10-12
All teachers:								
Teacher-led questioning and class discussion	96%	96	89	87	2+	3+	7+	9+
Lecture/teacher presentation/ demonstration	90	93	91	88	4	5	6	8
Review of content previously taught	91	87	85	80	7	11	11	14
Seatwork involving practice and drill	87	93	79	70	6	4	11	16
Oral reading by teacher	94	81	58	41	4	12	20	21
Silent reading by students (teacher assigned)	75	78	58	48	9	14	19	23
Silent reading by students (self-selected, self-sustained)	55	84	42	19	7	10	14	16
Oral reading by students	87	70	49	26	6	21	22	21
Student writing (process, activities, publishing)	69	64	35	20	19	24	19	22
Teacher conferencing with individuals	65	51	40	34	19	25	23	24
Cooperative learning activities/ group work	63	51	36	28	23	33	29	34
Art/music	80	58	20	6	14	26	10	5
Elementary teachers:								
Thematic unit work	84	71	60	-	8	14	13	-
Reading group activities	84	70	59	-	6	16	15	-
Shared reading experiences	78	55	39	-	14	27	27	-
Manipulative experiences	82	44	35	-	12	32	22	-
Assisted reading (read along, echoic)	72	35	23	-	12	26	17	-

*Average number of respondents to items listed: K-3 teachers, n = 1,281; 4-6 teachers, n = 999; 7-9 teachers, n = 859; 10-12 & OAC teachers, n = 692 (OAC = Ontario Academic Credit).

+The remainder of the teachers used the strategy less frequently or not at all. All percentages and less commonly based strategies can be seen in Tables D-13 and D-14 in Appendix D.

The limited quantity of reading and writing at the secondary level has been demonstrated by others (Applebee, 1984; Mikulecky, 1984; Smith & Feathers, 1983). These writers have also criticized the product-oriented reading and writing instruction they found to be prevalent (i.e., skill-building activities) and advocate engagement with reading and writing for "real" purposes. This "reading and writing to learn" philosophy is being supported by both a growing body of research and a number of teachers.

> I feel that students only improve in writing if they are writing--and not simply filling in blanks.
> (Grade 7 teacher, Northwest Territories)

> Structured language programs have, in some cases, killed spontaneity and have spoiled the desire to read. We have to encourage reading for fun--reading for learning. Kids have to know why they're learning something. If it's not real, if it's not meaningful, then maybe it's not important.
> (Secondary level resource teacher, Manitoba)

> I try to have a writing component in everything. When I do an art essay, kids will say--What, we're writing in Art? The writing process--it works and it's very effective.
> (Grade 7-9 Art teacher, British Columbia)

> One of the most effective methods for my students is the student journal. Because they are involved in personal writing, they put more effort into it.
> (Grade 9 English teacher, Nova Scotia)

Also notable were the considerable declines across grades in the numbers of teachers using all the presented strategies at least twice a week, with the exception of review, seatwork, teacher-led questioning/discussion, lecture, project work, audio-visual media and a few others. This indicates that the variety of learning activities and approaches offered to students becomes more and more limited as they progress through school. Two explanations for this are that teachers in the senior grades see their classes less frequently than more junior grade teachers, and senior grade teachers use a more content- and product-oriented approach with their students.

2. Teaching Style

During the focus group interviews it became apparent that many teachers remain very traditional in their teaching styles and fewer teachers use methods that are more student-centred or focussed on the individual. There was also some indication that teachers' recommended strategies for assisting students with difficulties differed between "teacher-directed" and "student-centred" teachers. A further analysis of this phenomenon was carried out by categorizing teachers based on those strategies they used most frequently. If a teacher reported using "lecture/teacher presentation" and "teacher-led questioning/discussion" up to three times per week and did not report using at least two of: "project work", "cooperative learning/group work", "students accessing resources" and "student experiments/research" at least twice a week, the teacher was placed in the teacher-directed category. If the teacher used two of the four latter-mentioned methods at least twice a week, he or she was considered to have a student-centred approach.

We found that 73 percent of teachers responding to this question fell within the teacher-directed category and 27 percent were categorized as student-centred. (Two percent of teachers did not fit into either of the two categories and were excluded from this analysis.) Table 4.3 shows that the proportion of teachers with a predominately teacher-directed style increased with the higher grades and the proportion of teachers with a student-centred style decreased.

TABLE 4.3: TEACHERS' STYLE OF TEACHING THE WHOLE CLASS, BY GRADE

GRADES	TEACHER-DIRECTED*	STUDENT-CENTRED*
K-3	66%	34%
4-6	68	32
7-9	80	20
10-13	84	16
All	73 (n=2999)	27 (n=1125)

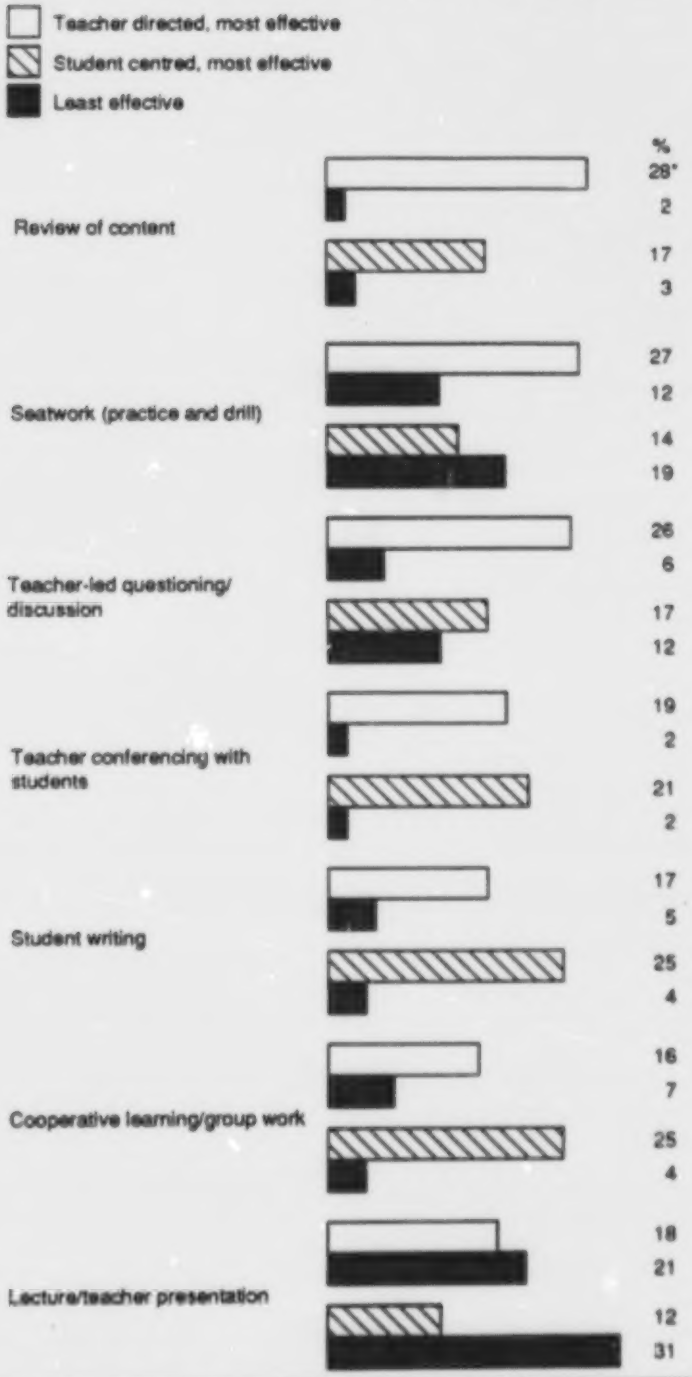
*Teacher-directed style was defined as the use of "lecture/teacher presentation" and "teacher-led questioning/discussion" up to three times per week while not using at least two of the following at least twice a week: "project work", "cooperative learning/group work", "students accessing resources" and "student experiments/research".

*Student-centred style was defined as the use of two of the following at least twice a week: "project work", "cooperative learning/group work", "students accessing resources" and "student experiments/research".

3. Effective Strategies

Figure 4.3 shows those strategies that the highest proportions of both elementary and secondary teachers (at least 15%) who used a specific teaching style reported as being the most effective in promoting the literacy development of students having basic difficulties. Also included are the proportions considering each as the least effective strategies. Table D-15 in Appendix D shows the complete findings for these and other teaching strategies.

FIGURE 4.3: TEACHING STRATEGIES IDENTIFIED AS MOST AND LEAST EFFECTIVE WITH STUDENTS WITH BASIC LITERACY DIFFICULTIES, BY TEACHER STYLE



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*Review of content was viewed as most effective with students having basic literacy problems by 28% of those using a teacher-directed style. (See definition in text.)

Teachers, apparently, do not have consensus on the strategies which are the most effective. This may be a result of the diversity of students' needs and learning styles. But it appears that the teaching approach does influence teachers' perceptions about effectiveness. For example, while over one quarter of those categorized as teacher-directed find "seatwork (practice and drill)" as a most effective strategy (27%), only 14 percent of the student-centred teachers reported it as effective. And cooperative learning/group work is regarded by more of the student-centred teachers as effective than those with a teacher-directed style.

Strategies receiving the highest degree of consensus--that is, high proportions of teachers, no matter what their teaching style, indicating most effective and low proportions reporting least effective--were review of content, and three more student-centred approaches, teacher conferencing with students, student writing and cooperative learning/group work. The one method clearly viewed as least effective with students having basic literacy difficulties by the highest proportion of teachers was lecture/teacher presentation/demonstration.

Some teachers spoke about their effective strategies with students having basic literacy difficulties:

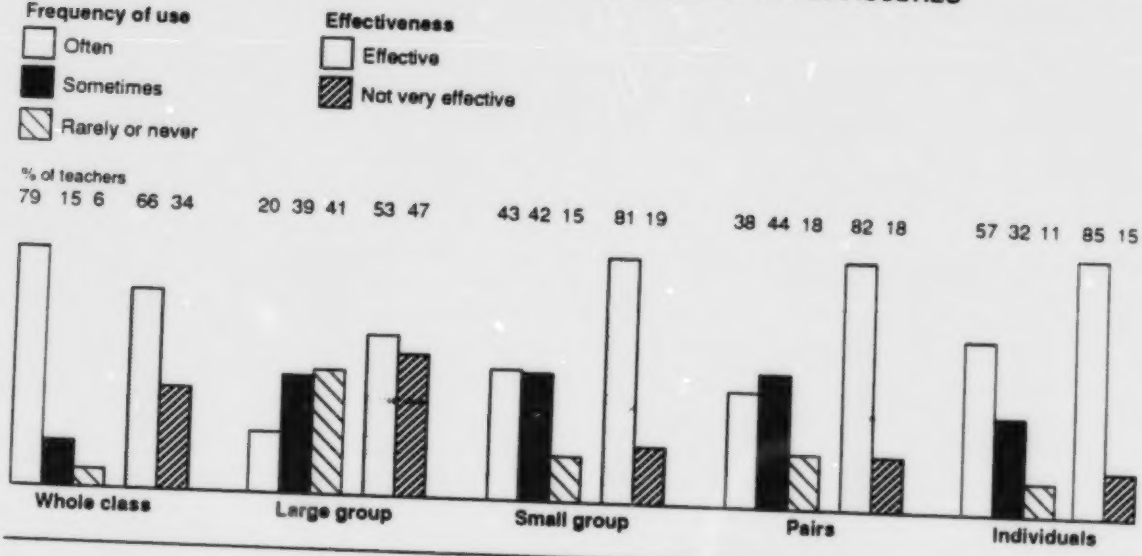
> Having group discussions with help from group leaders and group competitions all help, followed by teacher-student conferencing.
> (Grade 7 teacher, Manitoba)

> Individual learning packages, peer grouping, audio-visuals, rotational leader in experimental groups, submitting of assignments pertaining to the discipline, but also to student interest, using a variety of materials.
> (Grade 11/12 Science/Physics teacher, Saskatchewan)
>
> One-to-one conference, use of manipulatives, grouping, having advanced students work with children having literacy problems.
> (Grade 4 teacher, Newfoundland)

Because we asked teachers to identify effective strategies based on particular students they described, we were able to examine whether there were differences in the recommended strategies for those students with a learning disability, those learning ESL and those whose literacy was not reported as being influenced by these factors. We draw to the reader's attention that differences were not found in those strategies considered by teachers to be most and least effective with students classified in this way.

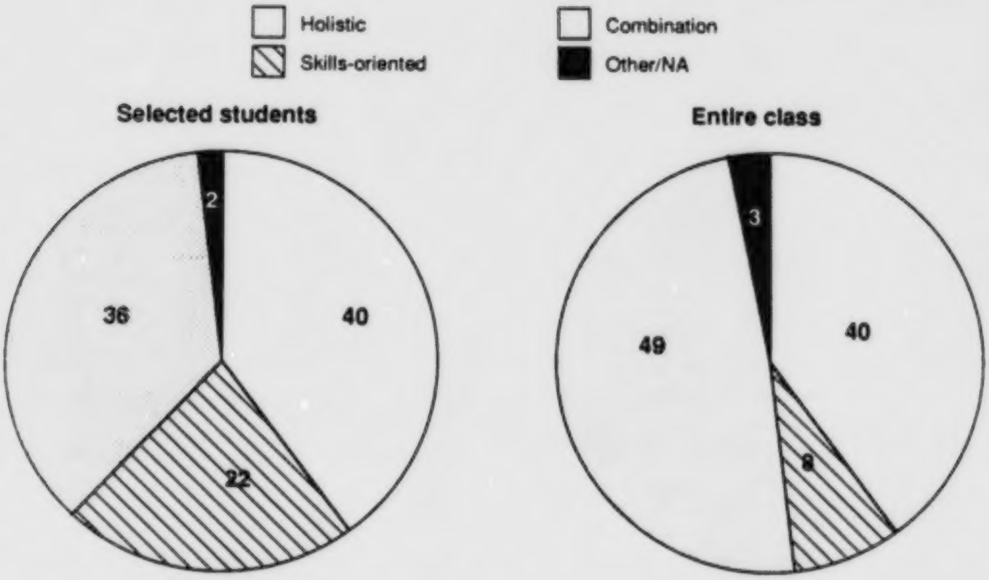
An investigation of the frequency with which teachers used various groupings of students and the effectiveness of these groupings in promoting the literacy of students with difficulties showed that at least four fifths of the teachers at all grade levels assessed using small groups and pairs and teaching individuals as effective (see Figure 4.4). These groupings, however, are used often by far fewer teachers (43%, 38% and 57% respectively) than whole class instruction (79%); the latter received less support in terms of its perceived effectiveness (66%). Similar patterns were found in each grade grouping. (Tables D-16 to D-19 in Appendix D show the information by grade).

FIGURE 4.4: FREQUENCY OF GROUPINGS TEACHERS USE AND EFFECTIVENESS OF GROUPINGS WITH STUDENTS (SELECTED) HAVING BASIC LITERACY DIFFICULTIES



During the focus group interviews we encountered some elementary teachers who were advocates of whole language, many who believed that a combination of whole language and skills-oriented approaches was needed and a minority who supported a strictly skills-oriented approach. These testimonials led us to wonder which particular approach is being used the most at the elementary level, and which do teachers perceive as being the most effective with students having basic difficulties. (We addressed this question only to elementary school teachers since the interviews revealed that the holistic approach was used by only a few secondary school teachers.) Figure 4.5 presents both the proportions of elementary school teachers using the different approaches with the class as a whole and the proportions advocating the use of each with students having difficulties.

FIGURE 4.5: **ELEMENTARY TEACHERS IDENTIFY THE MOST EFFECTIVE LANGUAGE LEARNING APPROACH WITH STUDENTS (SELECTED) HAVING BASIC LITERACY DIFFICULTIES AND APPROACH USED WITH ENTIRE CLASS**



In reporting the most effective approach in working with students having basic literacy difficulties, teachers were split fairly evenly between using solely a holistic approach (40%) and a combined approach--skill-oriented and holistic (36%). In working with the whole class, forty percent of the teachers reported using a holistic approach; another 49 percent say they actually implement a combination of approaches. Although 8 percent of teachers used only a skills-oriented approach with the entire class, twenty-two percent of them found a strictly skill-oriented approach most effective with students having basic difficulties.

> Since our primary classes (K-3) started using a writing process and a whole language approach, children are able to read, write and speak better.
> (Grade 1/2 teacher, British Columbia)

> A lot of these kids may not be literate in terms of our cultural standards, but are very competent in their own traditional ways. We need to be in tune and sensitive to their experiences, building reading and writing on what's relevant and familiar to them. I've found whole language to be very successful.
> (Intermediate/senior level Alternative program teacher, Northwest Territories)

> What I'm using right now as the theme is Egypt as a sort of springboard while the children get to know the classroom, the resources and the kind of things they can do.... I often do a country and cultures as a theme because so many learning activities can be built around them. I chose Egypt because of AIDA [playing in Toronto this season].... The children then can make up their own country, use any resources they want and build on their imaginations to any level of sophistication.
> (Grade 5 teacher, Ontario)

> Whole language plus direct teaching of skills seems to encourage a love for reading and to give children the writing and discussion experience they need.
> (Grade 4 teacher, Manitoba)

> I try not to use whole language because I find that it confuses them more than it helps them.
> (Grade 4 teacher, Alberta)

The recent literature espouses a whole language approach as being effective in cultivating the development of literacy. A possible explanation for the various reactions to using the whole language approach was posed in a recent overview of literacy education in Canada:

> Some teachers lack the philosophical orientation as well as the in-service support required to implement a whole language program...some teachers are reluctant to give up these familiar activities [worksheets, whole class direct instruction] for others involving more student centred approaches as they lack appropriate replacement material--especially large stocks of quality literature... (Maclean et al., in press)

The dearth of adequate training for teachers was also expressed by teachers when commenting on whole language and student-centred approaches in general:

> Last year I had a three day workshop on whole language and was then expected to implement it. Being at a Master's level in curriculum development, I knew that it was unreasonable to expect this. It has taken until the end of this first year and I feel more comfortable with it. I like it, though. Having taught Math and Science for nine years before, at the end of a year I knew "Math students". I've really found that with this approach that I see the whole child.
> (Grade 7 teacher, Northwest Territories)
>
> The thing is that people get a one day in-service and they think that just by putting the desks together they're doing cooperative learning. They haven't got the theory behind it... need four to five days training with the follow-up.
> Grade 2/3 teacher, British Columbia.

Table D-20 indicates the frequency with which teachers used and will continue to use particular methods to assess the progress of students with basic literacy difficulties. The table also shows the usefulness they attribute to each method. "Observation" is the method they selected as most often used and, as well, teachers see it as a useful method. Next, ranked in order of those methods often used by at least 40 percent of teachers, are "individual assignments", "reading/writing folders" and "teacher-produced tests". All three of these methods were declared "very useful" and "useful" by a large majority of the teachers (at least 82%). In addition, interviews/conferences with the individual student and with the parents, and student-directed projects were other methods declared "very useful" and "useful" by 75 percent or more of the teachers. It is interesting that "diagnostic techniques (like Cloze)" and "student journals" were seen as "very useful" and "useful" by 72 and 70 percent of the teachers, respectively, but used at least sometimes by fewer (58 and 57%, respectively). Standardized tests and peer evaluation were rarely or never used by about 70 percent of the teachers and seen as "minimally useful" and "useless" by 54 and 60 percent, respectively. Tables D-21 to D-24 present the teachers' responses on methods of assessment by grade levels.

In summarizing the teaching strategies teachers found helpful in promoting the literacy development of students with literacy difficulties, teachers did not attest to any particular approach, strategy or methodology as the panacea to diminish the literacy difficulties experienced by Canadian students. Many teachers, however, reported on the effectiveness of more student-centred approaches that emphasize the importance of socially embedded communication within meaningful interactive activities in the classroom. Also, many reported that observation, individual assignments, reading/writing folders and teacher-produced tests were useful evaluation methods. But, in order to implement these approaches effectively, teachers require sufficient training (theoretical as well as practical) to enable them to feel competent and comfortable using them. In their discussion of a school-university collaboration committed to improving the literacy of students, Shanklin and Rhodes (1989) provide some suggestions on how to approach this training:

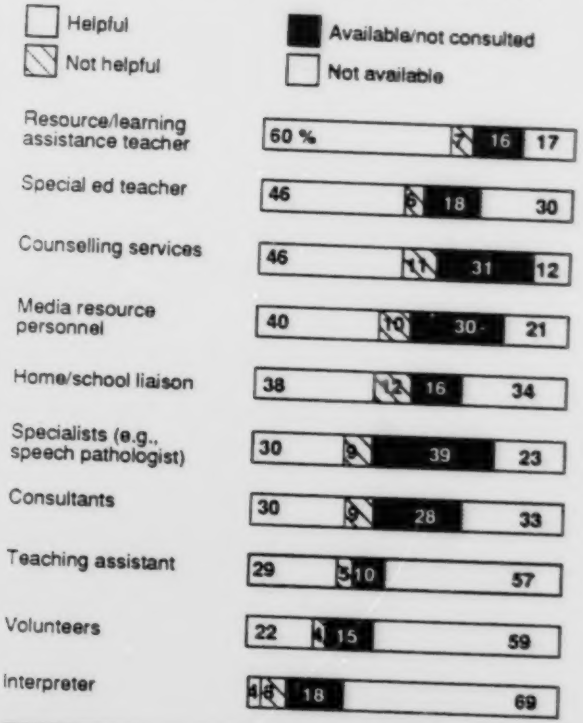
> To encourage teachers to transform their literacy instruction, we provided the same things that we wished them to provide students: supportive environments and opportunities for frequent reflection, sharing of ideas and problem solving (p.59).

E. HUMAN RESOURCES

This section gives those available human resources whom responding teachers found helpful, and those unavailable resources whom they would like to call on in working with the students identified as having basic literacy difficulties. We will be discussing the information in two figures. Figure 4.6 lists those people whom teachers reported as being both "helpful" and "not helpful," "available but not consulted," and "not available." The resource/learning assistance teacher was identified by the largest proportion of teachers (60%) as being helpful. Helpful to a substantial proportion of teachers (46%) were the special education teacher and counselling services. Special education teachers were used by a large number of teachers due to the increased numbers of learning disabled students enrolled in regular classes now. The teachers' view that counselling services are helpful was consistent with teachers' comments about their frustrations over how to deal with the socio-emotional problems of their students. The following comment illustrates the need for the assistance of trained support personnel.

> Psychological therapy is necessary for some students before they will be able to learn. Many learning disabilities are being uncovered, but awareness [alone] doesn't solve the problem.
> (Grade 8 Music teacher, Alberta)

FIGURE 4.6: **PERSONNEL HELPFUL/AVAILABLE FOR ASSISTANCE RE: STUDENTS (SELECTED) WITH BASIC LITERACY DIFFICULTIES (% OF TEACHERS)**



Teachers indicated that in some cases resources were available, but were not helpful. Some were frustrated by inaccessibility, as illustrated by one teacher.

> We need...social work, psychology, professionally trained people to deal with these problems and not just a token psychologist [visiting once a month].
> (Grade 5 teacher, Manitoba)

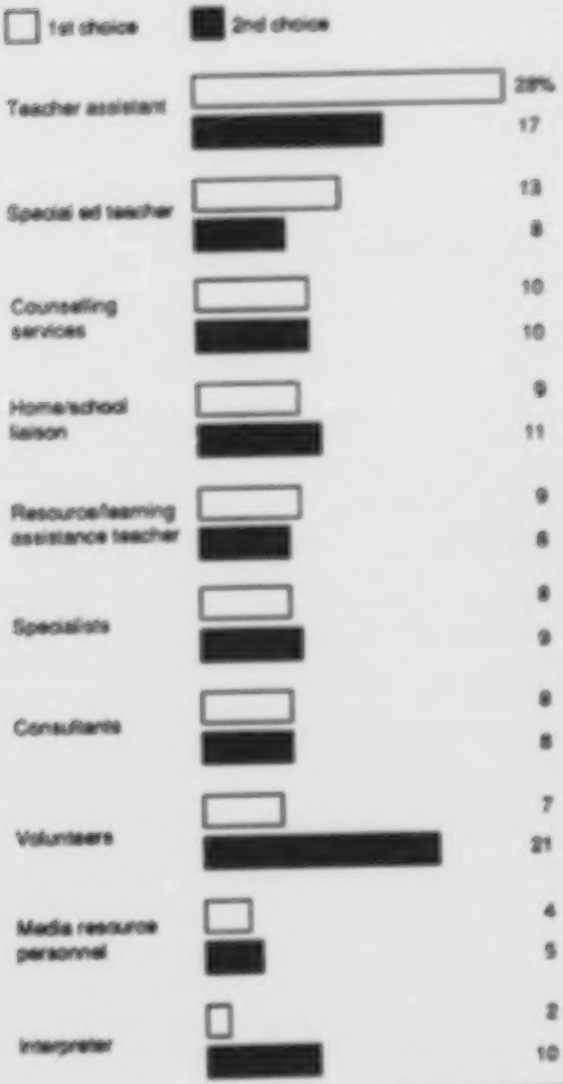
Certain personnel were available but were not used by some teachers to help with students having literacy problems. Four types of personnel who ranked highest as available but not consulted were specialists (39%), counselling services (31%), media resource personnel (30%), and consultants (28%). In some cases their students did not require these services. In others, the teachers found the waiting period for obtaining these services prohibitive. Some teachers simply were not aware of how these resources could help them in improving their students' literacy. One teacher pointed out:

> There's been a whole transition in education; the whole idea of teaming and working with others, using peer tutors, using volunteers and all other strategies to increase the one-to-one contact is being done in a situation where teachers work very much in isolation from one another and there's been very little training in terms of how do you use other people.
> (Secondary level Vice Principal/Special Education teacher, Manitoba)

Figure 4.7 illustrates the unavailable personnel whom teachers would most like to call upon. The information in this figure reflects the teachers' desires to have more contact with individual students: it reveals that teaching assistants were ranked as first choice and ranked very highly for teachers' second choice.

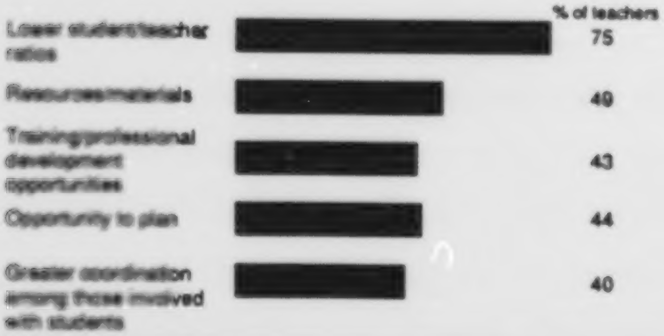
Teachers interviewed in urban centres who felt overwhelmed by the numbers of students needing extra attention in their overcrowded classrooms were desperate for extra assistance. Many teachers voiced the need for in-class para-professionals to help with management rather than instructional issues. Teachers wanted to have more time to teach. Others did express a desire for help from special education teachers to assist with instruction and for counsellors' help in dealing with socio-emotional problems.

FIGURE 4.7: UNAVAILABLE PERSONNEL TEACHERS WOULD MOST LIKE TO CALL UPON



From a list of twelve options, teachers were asked to specify up to five which would best help teachers address the literacy difficulties of their students. Figure 4.8 shows the options which were chosen by the greatest proportions of teachers (at least 40% of them). From teachers' previous indications of the need for individual attention to help students having difficulties, it follows that "lowering student/teacher ratios" would be specified by many teachers (75%). During the interviews as well as on the questionnaires, many teachers also made pleas for better resources and materials, time to plan, training opportunities, and opportunities to coordinate approaches with the parents, colleagues and other professionals who were involved with the students. Table D-25 presents the teachers' chosen options by grade level.

FIGURE 4.8: OPTIONS SELECTED BY TEACHERS WHICH WOULD ASSIST MOST IN ADDRESSING STUDENTS' LITERACY DIFFICULTIES (TEACHERS SELECTED UP TO 5 OPTIONS EACH)



F. PRINCIPALS' REPORTS ON LITERACY

1. School Activities Used to Promote Literacy

Slightly more than one half of the principals in the study (53%) reported that the development of literacy was specified as a formal objective in their schools. In schools across Canada, principals reported that literacy is being addressed by such means as emphasizing language throughout all curricula in the school, refining the Language Arts programs and resource-based learning programs, and by focusing on core skills development.

The school principals reported activities which are used in the schools to promote literacy. Table 4.5 ranks the activities by the frequency with which they were mentioned: staff development activities, conferencing with individual teachers, using themes, and school announcements. Other means that were reported as being used about one quarter of the time were principals initiating and supporting internal school activities, facilitating literacy activities with parents, encouraging initiatives undertaken with the community to promote students' literacy, and carrying out school jurisdiction initiatives with respect to literacy. Each type of activity is described below.

TABLE 4.4: PRINCIPALS REPORTING WAYS SCHOOLS PROMOTE LITERACY (n = 430)

ACTIVITIES (RANKED)	%
Staff Development Activities	83
Conferencing with Individual Teachers	81
Use of Themes, e.g.--Author of the Week --Library Book Day	76
School Announcements	41
Other (e.g., parent/community activities)	26

Staff development activities for promoting literacy were described by principals as including staff meetings and conferences, often with language arts teachers' involvement. Professional development and inservice activities for teachers have been focussed on literacy in order to help the teachers increase their awareness and understanding of the processes involved and the resources required to facilitate them. Many principals share and gain ideas for promoting literacy from teachers on an individual basis.

Many of the principals in each province identified school initiatives, some of which are mandated at the school board/district/division/unit level, that were designed to promote literacy among the students. Some principals stated that literacy is being promoted through their school's curricula and through curriculum thrusts, such as the whole language approach and language across the curriculum. In many schools, the entire school population (including teachers) spends one period (up to one hour) in uninterrupted sustained silent reading (USSR). Examples of using themes are "reading" days, such as Teddy Bear Day, Read for the Fun of It Day, and I Love to Read Day, as well as thematic writing/spelling contests.

The principals explained that students are encouraged to write their own announcements and then read them on the school public address (PA) system. Some school librarians read stories periodically over the PA to reinforce classroom themes or school initiatives. Public announcements promote Book Fairs, Authors' Days, and Author of the Week; "Book Ads" advertise popular books. Other activities identified by the principals are listed in Appendix F.

One category of principals' responses which they listed as "other" ones was the promotion of students' literacy through the parents. Principals stated that they encourage parents to listen to or read to and with their children on a regular basis. Some specific activities mentioned were Parents-as-Partner, Primary Book Reading Club, or the Knight Reading Club. Other specific activities involving or directed to parents are listed in Appendix F.

Another type of "other" responses was related to initiatives undertaken in conjunction with volunteer groups in the community; with established and concerned business organizations such as book clubs; and with well-known writers and literacy experts within or outside of the local community. Some specific examples can also be seen in Appendix F.

2. Indicators to Assess How Teachers Meet the Literacy Objectives

Those principals who indicated that literacy was a formal objective (53%), presented the following indicators which help them in assessing how well teachers are striving to attain that objective. Principals make both objective and subjective judgements about the students' accomplishments either directly (by themselves) or indirectly (through the teachers or through the varied evaluation processes). They visit classes where they examine samples of the students' work and teach classes on occasion to see for themselves what students can do. They assess the quality of the students' public display of work such as public speaking or debating competitions, drama productions, school activities (newspapers/ newsletters, yearbooks) or displays throughout the school, in classrooms, and in the students' individual work folders (such as books written and published by students, essay competitions, and research projects); through students' library usage; and by reviewing the types and quantity of books read. As well, principals monitor student performance results via criterion and norm-referenced assessments which teachers give on student report cards.

Indirectly, principals are informed of students' achievement by parents--through discussion of particular children or children's situations, through parents' involvement in the school as teacher assistants/observers, by their monitoring the home reading programs and through their association on the parent-teacher committees.

Also, some principals claimed that they could assess the degree of literacy development of students through their performance appraisals of teachers.

3. International Literacy Year Activities

Principals were asked to describe the special activities to be undertaken in their schools to commemorate International Literacy Year (1990). Many of the regularly carried out initiatives described above were given in response to this question. Only initiatives not reported there are highlighted here. The initiatives mentioned are grouped into two main categories--within school activities and those involving other organizations.

In-school activities consist of an Author-in-Residence program, students' research projects to document biographies of noted Canadian writers, publishing students' work individually and collectively, and having extended thematic programming. Some activities are intended to involve more than one school, for example, "twinned" schools, or a number of schools within a certain area. Also, local groups, such as theatrical groups, libraries, and writers' guilds are mounting collaborative programs with schools.

CHAPTER V

SUMMARY AND RECOMMENDATIONS

A. THE RESEARCH BACKGROUND

The purpose of this study was to survey Canadian teachers for their perspectives (1) on the nature and extent of literacy problems within their classes, (2) on the factors affecting their students' literacy development, and (3) on those actions, strategies and resources that are effective in promoting the literacy of students having difficulties. Information was collected from teachers by means of focus group interviews, and then a questionnaire survey.

The focus group interviews provided a basis for developing the survey as well as giving indepth information on teachers' perspectives on literacy. One hundred and thirty-one teachers, consultants and administrators were interviewed in five major Canadian cities and their environs.

Teachers from all subject areas and in other capacities (e.g., resource teachers, librarians) were asked to respond to the elementary and secondary-level versions of the questionnaire. The researchers developed a literacy guide based on the literature and on the interviews; the guide was included in the questionnaire to provide teachers with a common conceptual framework for considering students with difficulties (see Table 2.1, p. 17). The guide encompassed the areas of reading, writing, oral communication and mathematics at both basic and critical (higher-order) competence levels.

In addition, a two-page questionnaire was sent to the principal of the same schools as the teacher respondents. The purposes of that questionnaire were to acquire school descriptions, to examine principals' views on literacy and to identify their school-wide literacy activities.

A sample of schools was chosen systematically to represent each province and to allow for regional analyses. The number of schools to be surveyed was determined by the targeted number of teachers (10,665). The school representatives of the teacher associations were responsible for distributing the questionnaires to and collecting them from all professional staff in the schools. In some schools principals assumed this role.

Questionnaires were received from 60 percent of the targeted number of teachers and 66 percent of the principals. The regional analysis was done for four regions: the Atlantic Provinces, Quebec, Ontario and the West (including the Yukon).

Most of the respondents to the teacher questionnaire were classroom teachers (79%). The remainder had different school roles--mostly resource teachers, guidance counsellors, teacher-librarians and administrators. The teachers were fairly evenly distributed from across the grade levels except for a higher representation of primary teachers: Kindergarten to 3 (31%), 4 to 6 (23%), 7 to 9 (22%), 10 to 12 (including OAC--Ontario Academic Credit courses--22%). Although all the disciplines were represented at the secondary school level, teachers of the Humanities made up the largest proportion of respondents and Mathematics, Science and Technology teachers, the next largest proportion.

Literacy is a difficult concept and there is no consensus in the literature or by teachers on what the development of students' literacy involves. Many teachers at the secondary school level did not see that developing literacy was their responsibility, and some teachers had difficulties with the questionnaire as well as with the Literacy Guide. A difference between responding and non-responding teachers appears to be related to the emphasis that they place on literacy in their classes. These factors may have introduced some systematic bias influencing the representativeness of the data.

B. THE RESEARCH FINDINGS

The media have been giving literacy negative coverage; for example, the Southam Report (Calamai, 1987) continues to be cited for its report that almost one in four Canadians is illiterate. Nevertheless, one half of Canadian teachers believe that the same percentage of students or more are as literate today as 10 years ago. In terms of the quality of literacy today compared with that of 10 years ago, the proportion of teachers on both sides of the issue (that is, those who believe that literacy has deteriorated and those who believe it is the same or better), is almost the same, with slightly more believing that it is the same or better.

We asked teachers to consider the literacy of students in one of their recent classes while referring to the Literacy Guide of competencies in reading, writing, oral communication and mathematics at both a basic and a critical (higher-order) level. Most teachers based their assessment on observation of students' performance rather than on tests. Their account of the extent of literacy problems shows highly variable proportions of students in the selected class, ranging from none to over one-half. Across all grades, 18 percent of the students in the class were reported to have basic competency difficulties and 12 percent, critical difficulties. More boys than girls appear to have problems, both with basic and critical literacy.

More teachers reported that students with basic literacy difficulties ranged between 11 and 30 percent of the class than those who reported difficulties in other ranges. Also, the proportion of teachers who said their students had no difficulties with critical literacy was greater than the proportion of teachers who reported no basic literacy problems.

With regard to the areas of basic literacy difficulties reported by teachers across the grades, the largest proportion of students with basic difficulties across all grade levels had them in reading and writing. However, student numeracy difficulties were reported for a majority of students with problems in all grade levels. Oral communication was less of a problem (for approximately one half of the students having difficulties).

With respect to critical literacy difficulties reading and writing difficulties of students were similarly reported by the largest proportion of teachers, and students with mathematics difficulties by almost three quarters of senior grade teachers. Oral communication problems of students were reported by fewer but still over one half of teachers. Reading, writing, oral communication and mathematical problems at the critical literacy level increase slightly as the grades increase.

In terms of socio-economic status (SES), the findings in this study correspond to previous research, with a higher rate of basic literacy difficulties reported in schools with students from mainly lower socio-economic backgrounds than in schools with high SES. This difference is not nearly as pronounced for students described as having critical competence problems.

It was assumed that cultural differences, ESL/ESD, speaking a language other than English at home and impairments/disabilities would be contributing factors to students' literacy problems. Teachers not only verified these points, but also offered other influencing factors: home problems, socio-emotional problems, and, the lack of early identification and intervention in the schools.

It has been shown that an all-encompassing, agreed-upon definition for literacy continues to elude us. Because of this situation, a wide variation in definition exists between and among teachers and principals. Most, however, can be placed in one of three categories: (1) literacy follows a set standard or criterion; (2) literacy is functionally-oriented, related to the practical demands of a situation; and, (3) literacy focusses on higher-order skills beyond the basic level to capture more complex thought processes. The majority of teachers and principals in this study offered the second category of literacy definition rather than either of the others. Given more time to respond, perhaps more teachers would have continued in their definitions to include reference to higher-order literacy.

The way in which teachers actually teach is influenced by their definition and understanding of literacy. If literacy is reduced to reading and writing activities that are unrelated to the students' experiences, interests and needs, regardless of how functional the teacher considers the activities, literacy development can be impeded. Promoting literacy acquisition means engaging students in meaningful, communicative functions. This goal is especially relevant to many students having difficulties. Lowering expectations and limiting the instructional activities to "simple" curricular materials only exacerbate the problem. The disadvantages of lower socio-economic and minority groups may also be perpetuated. Attempts at developing literacy must relate school activities to students' worlds and challenge higher-order thinking.

Although teachers varied considerably in the strategies or approaches they considered effective in promoting the literacy development of those students having difficulties, there was a tendency for teachers to favour those that were process-oriented, highly interactional, and of an experiential nature. The range of examples provided by the teachers was indicative of their attempts to accommodate the variability of student learning needs and styles. Their choice of strategies also demonstrated the flexibility, expertise, knowledge and training required of a teacher today. The need for collaborative efforts between teachers and other professionals was made apparent.

The large majority of teachers reported using traditional, teacher-directed strategies more frequently--teacher-led questioning and discussion, presentation and demonstration, review of content and seatwork involving practice and drill with the class as a whole. Far fewer teachers used student-centred strategies with the class such as cooperative learning/small group work and individual conferencing, and those strategies were used less frequently as the grade level increases. Some teachers with a teacher-directed style favoured teacher-led strategies as most effective with students having basic literacy difficulties. Nevertheless, many teachers favoured more student-centred approaches with students having difficulties--that is, attempts to reach the individual student. There were testimonials that teachers would like to concentrate on using student-centred approaches, but lacked the training and support to help them implement these strategies effectively.

Many teachers reported that observation, individual assignments, reading/writing folders and teacher-produced tests were useful evaluation methods. Standardized tests were rarely or never used by a large majority of teachers.

Traditional approaches will continue to be used, but teachers indicated a desire to experiment in finding ways to reach the individuals having difficulties. More training would help them in gaining confidence to explore new ways.

It is interesting to note that those strategies recommended by teachers to be most and least effective with students having basic literacy difficulties were not found to be different for ESL and non-ESL students, nor were they different for those students who had or did not have learning disabilities.

The human resources whom teachers would like to call upon to help them with students having literacy difficulties are another indication of teachers' desire for more one-to-one interaction with those students. Teachers strongly indicated that teaching assistants, resource or learning assistance teachers, special education teachers, counsellors and volunteers are needed as resources. And, a large proportion of teachers would like to have the help of specialists, tutors and parents with these students as they have found them to be effective. The literature indicates that a strong partnership between home and school is necessary to enhance the development of students with literacy difficulties. Many teachers echoed this point. However, seeking help from the student's home was not perceived as a useful measure by many teachers, nor was referring the student to a specialist. Teachers attested to the changes necessary in their school jurisdictions to help students with literacy difficulties--relevant physical resources, availability of human resources and training opportunities.

C. RECOMMENDATIONS

Following from the findings of this study, **we recommend that:**

- school districts/divisions/boards/units and schools develop a comprehensive policy statement about literacy;
- senior administrators and principals have a thorough understanding of how language is developed and of the implications of poor language development for students;
- administrators help identify literacy objectives for each school, encourage teachers across subject areas within the school to establish programs to work towards those objectives, and monitor to ensure that these programs are effective. Stimulating activities with particular emphasis on the development of literacy in the formative years are particularly crucial;

- teachers in every subject area understand that they all have a significant role in contributing to the development of students' literacy;

- students be read to and encouraged to read aloud to others. Students with shortcomings in reading require one-to-one interaction; as teachers cannot provide the quality time for every student in need, peers, parents, older students and siblings, and adult volunteers should be encouraged to assist;

- students be encouraged to seek student interaction and cooperation with others in the same and in different classes, both at higher and lower grades, and with members of the community at large, such as businesses, volunteer associations, and the elderly;

- qualified resource personnel be made available to help teachers identify children's literacy problems and to provide positive and able assistance. While teacher helpers are a good beginning, teachers do require the professional assistance of qualified specialists;

- parents be made to feel welcome in the school, and be encouraged to participate actively in both the development and implementation of literacy-related initiatives;

- programs be visible throughout the community to encourage a community thrust in the development of literacy generally and the acceptance of teacher- and student-initiated, community-based learning activities;

- teachers be provided with inservice opportunities in which they will gain: (1) an understanding of the complexities of the nature of literacy development; (2) confidence in using a variety of resources, including community resources, to help enrich classroom activities and bring meaning to students in developing their literacy; and, (3) strategies for involving parents in the process of developing their children's literacy;

- teachers be encouraged to choose the inservice training activities which would help them develop the most suitable approaches for teaching their students with literacy difficulties;

- classrooms in which students have literacy difficulties and resource centres be provided with a variety of appropriate resources, including books, magazines, newspapers, audio-visual aids and computer hardware and software;

- teachers be given time to plan literacy development activities collaboratively with parents, other classroom teachers, specialists and community resource persons; and,
- teachers be encouraged to experiment with a wide variety of strategies for developing literacy in their students.

This study examined teachers' views on literacy and only indirectly reflects the nature and extent of students' literacy difficulties. Therefore, **we recommend that:**

- a more accurate portrayal of students' literacy be generated from research on the students themselves; and concomitantly,
- qualitative research be carried out in order to reveal more definitively (1) how students with different learning needs acquire literacy (including numeracy) and (2) how to teach in ways that best help them in their literacy development.

Many teachers are particularly concerned about literacy and care a great deal about the progress of their students and ways to help them succeed. Notwithstanding the social, financial and school-based organizational conditions that often impede students' learning, teachers clearly require the support which will enable them to implement methods and use resources that better promote the literacy development of all students. Promoting literacy, however, is a complex issue that defies simple solutions; it requires collaboration with the commitment of many players. And, as one Grade 11 Social Studies teacher stated so succinctly,

> Improving literacy should be everyone's concern, and the education system, with help from community and business, should be leading the way.

REFERENCES

Anderson, A.B., & Stokes, S.J. (1984). Social and institutional influences on the development and practice of literacy. In H. Goelman, A.A. Oberg, & F. Smith (Eds.), **Awakening to Literacy** (pp. 24-37). Portsmouth, NH: Heinemann Educational Books.

Applebee, A.N. (1984). Writing and Reasoning. **Review of Educational Research, 54** (4), 577-596.

Avery, C.S. (1987). First grade thinkers becoming literate. **Language Arts, 64**(6), 611-618.

Bereiter, C., & Scardamalia, M. (1987). An attainable version of high literacy: Approaches to teaching higher-order skills in reading and writing. **Curriculum Inquiry, 17**(1), 9-30.

Bloome, D. (1986). Building literacy and the classroom community. **Theory Into Practice, 25**(2), 72-75.

Brodkey, L. (1986). Tropics of literacy. **Journal of Education, 168**(2), 47-54.

Calamai, P. (1987). **Broken Words: A Special Southam Survey.** Toronto: Southam Newspaper Group.

Canadian Child Welfare Association. (1990). **Literacy and Youth in Care of the Child Welfare System.** Ottawa: Canadian Child Welfare Association.

Canadian Task Force on Mental Health Issues Affecting Immigrants and Refugees (1989). **After the door has been opened.** Ottawa: Department of the Secretary of State of Canada.

Cheng, M., Tsuji, G., Yau, M., & Ziegler, S. (1989). **The every secondary school survey, Fall, 1987.** Toronto: Research Section, Library Services Department, Toronto Board of Education.

de Castell, S., Luke, A., & MacLennan, D. (1986). On defining literacy. **Literacy, Society and Schooling.** (pp. 3-14) Cambridge: Cambridge University Press.

de Castell, S., & Luke, A. (1987). Literacy instruction: Technology and techniques. **American Journal of Education,** 413-440.

Decker, B.C. (1986). Aliteracy: What teachers can do to keep Johnny reading. **Journal of Teacher Education, 37**(6), 55-58.

DesLauriers, R.C. (1990). **The Impact of Employee Illiteracy on Canadian Business.** Ottawa: The Conference Board of Canada.

Employment and Immigration Canada. Strategic Planning and Research Directorate (1990). **Analysis of Immigrant Landings: January-December 1987, 1988, 1989.** Ottawa: Employment and Immigration Canada.

Erickson, F. (1984). School literacy, reasoning, and civility: An anthropologist's perspective. **Review of Educational Research, 54**(4), 525-546.

Feathers, K.M., & Smith, F.R. (1987). Meeting the reading demands of the real world: Literacy based content instruction. **Journal of Reading, 30**(6), 506-511.

Freeman, E.B., & Sanders, T. (1987). The social meaning of literacy: Writing instruction and the community. **Language Arts, 64**(6), 641-645.

Froese, V. (1988). [Review of **literacy in Canada--A research report**]. **English Quarterly, 21**(2), 120-126.

Gilliss, G. (1988, July). **Functional Literacy--A Challenge for society and its schools.** Research and Information Services, Canadian Teachers' Federation.

Heath, S.B. (1980). The functions and uses of literacy. **Journal of Communication, 30**(1), 123-133.

Holdaway, D. (1979). **The foundations of literacy.** New York: Aston Scholastic.

Holdaway, D. (1984). **Stability and change in literacy learning.** Portsmouth, NH: Heinemann Educational Books.

Hunter, C. St. John. (1987). Literacy: What Do the Definitions Tell Us? In International Seminars on Literacy in Industrialized Countries (Proceedings: **Literacy in the Industrialized Countries: A Focus on Practice**), **Convergence, 20**(3,4), 23-26.

International Seminars on Literacy in Industrialized Countries (Proceedings: **Literacy in the Industrialized Countries: A Focus on Practice**). (1987). Illiteracy and the Public Education System: Who's Responsible? **Convergence, 20**(3,4), 79-80.

King, A.J.C. (1986). **The Adolescent Experience.** Toronto: Ontario Secondary School Teachers' Federation.

King, A.J.C., & Peart, M.J. (1990). **The Good School.** Toronto: Ontario Secondary School Teachers' Federation.

King, A.J.C., Warren, W.K., Michalski, C., & Peart, M.J. (1988). **Improving Student Retention in Ontario Secondary Schools.** Toronto: Ministry of Education.

Kirsch, I.S., & Guthrie, J.T. (1978). The concept and measurement of functional literacy. **Reading Research Quarterly, 13**(4), 485-507.

Kirsch, I.S., & Jungeblut, A. (1986). **Literacy: profiles of America's young adults** (Final Report, 16-PL-01). Princeton, NJ: The National Assessment of Educational Progress.

Lieberman, M.L. (1983). The verbal language of television. **Journal of Reading, 26**, 602-609.

Maccoby, E. & Jacklin, C. (1974). **The Psychology of Sex Differences.** Standford, CA: Stanford University Press.

MacGinitie, W.H., & MacGinitie, R.K. (1986). Teaching students not to read. In S. de Castell, A. Luke, & K. Egan (Eds.), **Literacy, society, and schooling** (pp. 256-269). New York: Cambridge University Press.

Maclean, M., Gordon, C., Hopper, C., & Miller, L. (in press). Canada. In **The International Handbook of Literacy Education**.

Manitoba Task Force on Literacy. (1989). **Pathways for the learner.** Winnipeg: Department of Education and Training, Communications Branch.

McClendon, J. (1986). Developing writers in an intermediate-grade classroom. **Theory Into Practice, 25**(2), 117-123.

Mikulecky, L. (1984). Preparing students for workplace literacy demands. **Journal of Reading, 28**, 253-257.

Moll, L.C. (1986). Writing as Communication: Creating strategic learning environments for students. **Theory Into Practice, 25**(2), 102-108.

Mori, G.A. & Burke, B. (1989). **Educational Attainment of Canadians (1986 Census of Canada).** Ottawa: Statistics Canada.

Olson, D. (1986). Learning to mean what you say: Towards a psychology of literacy. In S. De Castell, A. Luke, & K. Egan (Eds.), **Literacy, society, and schooling** (pp. 145-148). New York: Cambridge University Press.

Pallas, A.M., Natriello, G., & McDill, E. (1989). The Changing Nature of the Disadvantaged Population; Current Dimensions and Future Trends. **Educational Researcher, 18**(5), 16-22.

Porter, J. (1979). **The measure of Canadian Society: Education, Equality and Opportunity.** Toronto: Gage.

Porter, A.G., & Brophy, J. (1988). Synthesis of research on good teaching: Insights from the work of the institute for research on teaching. **Educational Leadership, 45**(8), 74-83.

Reid, S. (1988). **The 1988 Survey of Pupils for whom English is a Second Language in Vancouver Schools.** Vancouver: Student Assessment and Research, Vancouver School Board.

Royal Commission on Employment and Unemployment. (1986). **Education for self-reliance: A report on education and training in Newfoundland.** Government of Newfoundland.

Scribner, S., & Cole, M. (1981). **The psychology of literacy.** Cambridge: Harvard University Press.

Scribner, S. (1984). Literacy in three metaphors. **American Journal of Education, 93**, 6-21.

Shanklin, S.L., & Rhodes, L.K. (1989). Transforming literacy instruction. **Educational Leadership, 46**(6), 59-70.

Shuttleworth, D. (1986). Parents-as-partners. **Education Canada,** Summer, 41-43.

Smith, F.R., & Feathers, K.M. (1983). The role of reading on content classrooms: Assumption vs. reality. **Journal of Reading, 27**, 262-267.

Smith, F. (1988). **Joining the literacy club.** Portsmouth, NH: Heinemann Educational Books.

Sofo, F. (1988). Literacy, schools and society: access and excellence. **Educational Review, 40**(3), 259-275.

Statistics Canada (1989). **Survey of Literacy Skills Used in Daily Activities.** Ottawa: Statistics Canada.

Stock, P.L. (1986). Writing across the curriculum. **Theory Into Practice, 14**(2), 97-101.

Stubbs, M. (1980). **Language and Literacy - the sociolinguistic of reading and writing.** London: Routledge & Kegan Paul.

Taber, S.R. (1987). Current Definitions of Literacy. **Journal of Reading, 30**(5), 458-461.

Taylor, D. (1983). **Family literacy.** Exeter, NH: Heinemann Educational Books.

Tierney, R.J., & Rogers, T. (1986). Functional literacy in school settings. **Theory Into Practice, 25**(2), 124-127.

Wells, G. (1987). Apprenticeship in Literacy. **Interchange, 18**(1/2), 109-123.

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APPENDIX A: INSTRUMENTS

- Outline of Focus Group Interview
- Elementary School Teachers Questionnaire
- Secondary School Teacher Questionnaire
- Principal Questionnaire

Outline of Focus Group Interview

To the interviewers: This is an abstract about the Literacy Study which may come in handy during your introduction.

> "We have been contracted through the Canadian Teachers' Federation to carry out a study on literacy among elementary and secondary students from the perspective of Canadian teachers. This study has been funded by a body called the National Literacy Secretariat. Results will be reported in the spring of 1990 which is International Literacy Year.
>
> The study consists of two phases. This focus group is part of Phase 1 in which we hope to gain an understanding of teachers' experiences with literacy problems in their classrooms, the instructional strategies they have implemented, and the recommendations they have for dealing with literacy concerns. Focus group interviews are being held in five regions across Canada.
>
> The second phase will entail a questionnaire survey which will be sent to 14,000 elementary and secondary teachers in all provinces and territories across Canada. Your input today will assist us in refining this questionnaire.
>
> Based on the analysis of both the interview and questionnaire data, the report will provide the perspective of Canadian teachers on literacy issues, an inventory of techniques which teachers believe will improve students' literacy levels, and recommendations for structural supports and programs for assisting teachers in their efforts to improve the literacy levels of their students."

The following are the topics of the interview which could take between one to two hours depending on the numbers of teachers in the group and the depth of your questions. If it is necessary to curtail the session, select the high priority items as starred. Ensure, though, that you **try all the items with at least some teachers**. Please attempt to make notes about each participant, either during the interview or shortly after it from the taped discussion. We are particularly interested in the teachers' (1) strategies used to improve the student's literacy, and (2) feedback about the questionnaire items we discussed (i.e., the clarity, acceptability and utility of our literacy categories and of the strategy questions.

1. *Ask for details on the teachers' current responsibilities, background experience, years of experience, qualifications or area of specialization.

2. *Ask teachers to think of a class or course they are currently teaching or taught last year. Do/did they have any students who are/were having difficulties in literacy? (approximate numbers/percentages)

3. *Ask teachers to think of one student in that class who is/was having difficulty beyond what one would expect of a student in their class. (describe difficulties, background of student, possible factors contributing to difficulties)

4. *Ask teachers what they think of when they think of literacy. (You could also try out the Literacy Key at this point, but it may be best to wait until later - see item 11.)

6. *As you progress through the interview, try to get an idea of their approach to teaching. Do they seem to arrange for student-centred activities or are they teacher-directed? Do they use an open, discovery approach or a structured, information-giving approach? If language arts/English teachers, do they use a holistic approach or a basal reader/skills acquisition/pre-packaged text approach or an eclectic one?

7. Try the strategies items.

8. Ask teachers to describe a typical day/period with the class. What did the student in question (see 3. above) do during that day/period? How does/did the student with difficulties cope with the various methods, materials and groupings used throughout the day/period?

9. Ask teachers to describe any methods/approaches/strategies as well as resources (material/human) they use/d at any time in promoting the student's literacy development. Describe specifics of the methods/approaches/strategies and resources and their effectiveness. If there is no mention of the following, probe for comments on them:
   - work on computers; software used
   - innovative programs/projects/approaches/resources they have heard about.

10. Ask teachers to describe the methods they use/d to evaluate the progress of all the students. Do/did they have to change any of these methods in working with the student with literacy difficulties? If you cannot get specific information, suggest they think of a particular unit and describe how they evaluated the students on the activities of that unit.

11. **Provide teachers with a copy of our Literacy Key**. Explain that it is a draft and that we would appreciate their comments, as brief as they might have to be. Ask them to try it out with the subsequent items. Some might wish to mail back their comments later and that would be fine as long as we get them ASAP.

If it is difficult for the teachers to do the items on the spot, for one reason or another, continue with the following items.

12. *Ask teachers to think back to the class to which they were initially referring. Give the numbers of students whom they would identify as having difficulties within each literacy category.

13. *Ask for descriptions of one student with difficulties in each category in terms of the specific areas (reading, writing, oral communication, mathematics). Describe the student's background.

14. *What specific instructional approaches/methods/strategies are/were the most and the least effective with the different students?

15. What resources are/were most/least effective with the students?

16. *Ask for feedback on the descriptions of literacy that we used. Is the Literacy Key self-explanatory and meaningful to them? Do they agree/disagree with the category distinctions and descriptions?

17. *In their province's secondary school system:
    a) is there a distinction made between levels of difficulty of courses? If so, what are they called (e.g., Basic, General, Regular) and what do they describe?

    b) are there specific types of courses; e.g, vocational, professional? What are their definitions? A copy of the school calendar would be very helpful and any other material which would give us more of a clue about their system.

18. Ask teachers what message they would like to pass on to the National Literacy Secretariat with regard to:

    - the extent and nature of literacy difficulties among students they have taught or are teaching -

    - the extent to which they are able to assist students having difficulties attain higher levels of literacy -

    - what is most needed to aid them in dealing with literacy problems among their students -

19. *Ask other questions which you think are relevant if you have time.

TEACHERS AND LITERACY

ELEMENTARY SCHOOL TEACHER QUESTIONNAIRE

A Study Sponsored by the

Canadian Teachers' Federation

funded by the

National Literacy Secretariat

SOCIAL PROGRAM EVALUATION GROUP
QUEEN'S UNIVERSITY AT KINGSTON

The purpose of this questionnaire is to obtain your perspective about the range of literacy difficulties of your students and your strategies to overcome the difficulties. Our intent is not to label groups of students as illiterate, but rather to describe the context and development of literacy across all grade levels from the perspective of teachers of all subjects.

Our interviews across Canada have given us some useful information and helped in the development of the questions. The results from this questionnaire will provide a more complete picture of the perspectives of teachers in your province and across Canada.

Literacy refers to literacy in English (for this questionnaire).

All staff in your school are being asked to participate in the study. If you are a classroom teacher, please respond to all questions. If you do not teach a class, you are asked to respond to a few questions. If you do not teach in English, i.e., you teach French/German/Spanish as a Second Language or you are in a French Immersion program, please consider the English literacy of students in general while completing the questions; only some items may be applicable.

Please feel free to write comments when you feel the response choices do not allow you to give your views accurately or with flexibility.

Be assured that your responses will be treated as confidential. They will be combined with those of others in similar situations. Although comments will be used to illustrate some views, they will not be linked to any specific teacher or school. You do not need to sign the questionnaire. We trust that you will respond candidly to the questions.

As soon as possible, please enclose the completed questionnaire in the brown envelope and submit it to the individual who gave it to you.

Based on your responses, the report should make a significant contribution in highlighting the literacy concerns and recommendations of Canadian teachers in 1990--International Literacy Year.

Wendy Warren, Ed.D.
Ruth Rees, Ph.D.
Queen's University at Kingston
November, 1989

SECTION A: STAFF BACKGROUND

1. Please indicate your main role by entering in the first box the number which represents how you spend most of your time. If you have another responsibility, enter the number in the second box. ☐ ☐

   1 = Classroom teacher
   2 = Vice-principal/Assistant Principal
   3 = Principal
   4 = Guidance Counsellor
   5 = Teaching Assistant
   6 = Resource Teacher
   7 = Librarian
   8 = Other (please specify)____________________

2. Are you:

   1 = Male?
   2 = Female? ☐

3. As of June 30, 1990, how many years will you have taught at the:

   Elementary level ☐☐
   Secondary level ☐☐
   Other (specify) ☐☐

   ____

   Total ☐☐

4. Please indicate your degree(s) and/or diploma(s) by placing a check mark in the appropriate box(es).

   a. Diploma in technical education ☐ a
   b. Teaching diploma ☐ b
   c. BEd ☐ c
   d. BA, BSc or equivalent ☐ d
   e. MEd ☐ e
   f. MA, MSc or equivalent ☐ f
   g. Doctorate ☐ g
   h. Other (specify)__________________________ ☐ h

5. Please describe each class you teach by indicating the grade(s), subject(s) and classification. Each class should be described on a separate line. Indicate multi-grade classes as shown in the example. If you teach **most** or **all subjects** to a class record **M**. If you teach only **one** or a **few subjects** to a class record **F** and specify the subject(s). Only use the **classification** box if an entire class has a particular uniqueness (e.g., ESL, special needs, gifted). If this is the case, place **U** in the box and specify the unique feature.

Example:

Grade(s)	Subject(s)	(specify if F)	Class'n	(specify)
1/2/3	F	Lang., Math	U	ESL

Grade(s)	Subject(s)	(specify if F)	Class'n	(specify)
	☐		☐	
	☐		☐	
	☐		☐	

If you do not teach a class, please GO TO QUESTION #40 ON PAGE 13.

If you do teach, concentrate (throughout the questionnaire) only on the one class you teach. If you teach more than one, focus on the most recent class you taught prior to beginning the questionnaire.

6. Describe the class by entering the grade(s), subject(s) you teach to this class, classification (if applicable), and the enrolment. As in #5 above use **M** if you teach **most** or **all subjects** to this class and **F** (with subjects specified) if you teach only **one** or a **few**. Use **U** in the **classification** box and specify the unique feature of the class, if applicable.

Example:

Grade(s)	Subject(s)	(specify if F)	Class'n	(specify)	Enrol
3	M				25

Grade(s)	Subject(s)	(specify if F)	Class'n	(specify)	Enrol
	☐		☐		☐☐

SECTION B - PREVALENCE OF LITERACY DIFFICULTIES

PLEASE RESPOND TO QUESTIONS 7 - 10 USING THE LITERACY GUIDE WHICH WE ASK YOU TO REMOVE FROM THE CENTRE OF THE QUESTIONNAIRE.

7. Approximately how many students in your class are having **BASIC COMPETENCE** difficulties (in at least one of the four areas) different from what you would expect, given the age of the students? Enter the number of students in the box(es).

   # ☐☐

8. Approximately how many of the students identified in #7 above have difficulties with each of the following (you may have students with difficulties in more than one area):

	#
Reading	☐☐
Writing	☐☐
Oral Communication	☐☐
Mathematics	☐☐

9. Approximately how many students in your class are having **CRITICAL COMPETENCE** difficulties (in at least one of the four areas) different from what you would expect, given the age of the students? (Exclude any students counted in #7 above.)

   # ☐☐

10. Approximately how many of the students identified in #9 above have difficulties with each of the following (you may have students with difficulties in more than one area):

	#
Reading	☐☐
Writing	☐☐
Oral Communication	☐☐
Mathematics	☐☐

If none of your students has BASIC or CRITICAL COMPETENCE difficulties, please proceed to Question #40 on page 13.

SECTION C - BACKGROUND OF STUDENTS WITH LITERACY DIFFICULTIES

The next five questions focus on the background of students you have identified as having difficulties with BASIC and/or CRITICAL COMPETENCE.

11. If you think that cultural differences have affected the literacy development in the students you have identified as having difficulties, please give the number of students affected and describe their cultural background(s) below. # ☐☐

For how many of the students identified as having difficulties (BASIC and/or CRITICAL COMPETENCE) has their literacy development been affected by the following (enter a 0|0 if none of the students can be so identified):

#

12. learning English as a second language ☐☐
13. speaking/hearing a language other than English at home ☐☐
14. learning English as a second dialect ☐☐

15. How many of the students having difficulties have been formally identified (assessed by a specialist) as having an impairment or a disability that affects their learning? ☐☐

16. Please describe other factors that you think may have affected the students' development of literacy.

SECTION D - TWO STUDENTS WITH LITERACY DIFFICULTIES

Many of the remaining questions will focus on two particular students in the class you have been describing. For each of the two categories (**BASIC and CRITICAL COMPETENCE**), think of one student who is having difficulty. Please choose the two students whose literacy difficulties are somewhat representative of other students having literacy difficulties. Call the student having **BASIC COMPETENCE** difficulties **Student A**, and the other having **CRITICAL COMPETENCE** difficulties **Student B**.

17. Describe each student by referring to the following keys:

Gender	**Age in Relation to Class**	**Parents' Occupations**
1 = Male	1 = Average	1 = Unskilled
2 = Female	2 = Older	2 = Skilled
	3 = Younger	3 = White collar
		4 = Professional/executive
		5 = Unemployed
		6 = Other (specify ________
		7 = Don't know

	Student A	**Student B**
Gender	☐	☐
Age	☐	☐
Mother's Occupation	☐	☐
Father's Occupation	☐	☐

18. If you think that cultural differences have affected the English literacy development of the students please give the cultural backgrounds.

Student A:

Student B:

Do you think that the following have affected their literacy?

KEY
1 = Yes
2 = No

	Student A	**Student B**
19. learning English as a second language?	☐	☐
20. speaking/hearing a language other than English at home?	☐	☐
21. learning English as a second dialect?	☐	☐

22. Have the students been formally identified (assessed by a specialist) as having a specific impairment or disability?

	Student A	**Student B**
KEY 1 = Yes 2 = No	☐	☐

If "Yes", specify:

1 = Visually impaired 2 = Hearing impaired 3 = Emotionally/behaviourally disturbed 4 = Mentally handicapped 5 = Learning disabled 6 = Combination (specify)__________________ 7 = Other (specify)________________________	☐	☐

23. What factors other than those previously presented (culture, language learning, disability) do you think have contributed to the literacy difficulties of **Student A** and/or **Student B** (e.g., social/emotional factors, lack of early identification/ intervention)?

Student A:

Student B:

From Section B on, we wish to obtain an idea of the number of students in your specified class who are having difficulties in English literacy and details about those difficulties. We recognize that literacy is complex, developmental and related to culture and background. For purposes of this study, however, please refer to the following Literacy Guide and consider two categories of literacy, BASIC COMPETENCE and CRITICAL COMPETENCE, each encompassing four areas: reading, writing, oral communication and mathematics. Although we have outlined a general description within each area, we ask that you consider them in relation to tasks pertinent to the curriculum in your particular grade as you answer the questions.

If you teach at the early primary level, please base your responses on early or pre-literacy competencies in the four areas.

LITERACY GUIDE

A BASIC COMPETENCE

Reading - understanding word meanings and concepts presented in uncomplicated contexts

Writing - using sentences with common words to express simple ideas and content

Oral Communication - listening and comprehending; expressing straightforward information and ideas in varying contexts

Mathematics - applying basic concepts and calculations to solve routine problems

B CRITICAL COMPETENCE

Reading - analyzing and evaluating what has been read

Writing - writing appropriately for audience and elaborating ideas and content

Oral Communication - listening interpretively; articulating ideas in an organized way

Mathematics - analyzing and applying appropriate strategies to solve complex problems

---

REMOVE THIS PAGE FOR EASY REFERENCE BEGINNING WITH SECTION B.

Please refer to Literacy Guide for Question #24 and #25.

24. In what areas are the students having difficulties? Please specify by placing **check marks** in the boxes.

	Student A	**Student B**
Reading	☐	☐
Writing	☐	☐
Oral Communication	☐	☐
Mathematics	☐	☐

25. What areas are those of particular strength for the students? Please specify by placing **check marks** in the boxes.

Reading	☐	☐
Writing	☐	☐
Oral Communication	☐	☐
Mathematics	☐	☐

26. On what are you mainly basing your assessment about the students' difficulties? Your response in the first box represents the main factor; the others, secondary factors.

1 = Observation of student performance (e.g., written and oral work)
2 = Specialist's assessment
3 = Teacher-prepared tests
4 = Standardized tests
5 = Colleague's judgement
6 = Other (specify) ________________
7 = Other (specify) ________________

☐	Main	☐
☐		☐
☐		☐

Comment:

SECTION E - STRATEGIES AND RESOURCES

In this section we wish to explore the strategies that you have used and **your perception** of their results to date with **Student A.**

27. What actions have you taken or are you taking and what is your perception of their effectiveness in promoting the development of **Student A's** literacy? Please use the following key to respond in **each** box.

1 = Tried with significant improvement
2 = Tried with some improvement
3 = Tried with no improvement
4 = Not tried even though possible
5 = Not tried; not possible

a. consulted with parents to obtain their help ☐ a

b. sent extra/special work home with student ☐ b

c. consulted a specialist (e.g., resource teacher) (specify) ______________________ ☐ c

d. referred student to specialist (specify) ______________________ ☐ d

e. follow program recommended by specialist ☐ e

f. work one-to-one with student ☐ f

g. tutor (peer, older student, adult) assists student ☐ g

h. present material differently to student (e.g., orally instead of printed) ☐ h

i. change the type of material used with student ☐ i

j. change the physical arrangement of the classroom (specify) ______________________ ☐ j

k. allow student to present work differently ☐ k

l. reduce amount of work expected of student ☐ l

m. have student work with computer software (specify) ______________________ ☐ m

n. developed a special program for the student (specify) ______________________ ☐ n

o. other (specify) ______________________ ☐ o

Comment:

28. Approximately how frequently (refer to the Frequency Key below) do you use **each** teaching strategy/approach with the class as a whole (specified in Question #6)?

Frequency Key
1 = Every day
2 = 2 - 3 times/week
3 = 2 - 3 times/month
4 = Once in 1 month
5 = Once in 3 months
6 = Never

a. Lecture/teacher presentation/demonstration ☐ a
b. Teacher-led questioning and class discussion ☐ b
c. Review of content previously taught ☐ c
d. Seatwork involving practice and drill ☐ d
e. Thematic unit work ☐ e
f. Reading group activities ☐ f
g. Reading by teacher ☐ g
h. Oral reading by students ☐ h
i. Silent reading by students (teacher assigned) ☐ i
j. Silent reading by students (self-selected, self-sustained) ☐ j
k. Shared reading experiences ☐ k
l. Assisted reading (e.g., read along, echoic) ☐ l
m. Dictated stories (individual or group composed) ☐ m
n. Student writing (process, activities, publishing) ☐ n
o. Writing/learning on computer ☐ o
p. Project work (individual or group) ☐ p
q. Cooperative learning activities/group work ☐ q
r. Teacher conferencing with individuals ☐ r
s. Drama/role-play ☐ s
t. Art/music ☐ t
u. Manipulative experiences ☐ u
v. Student experiments/research ☐ v
w. Student accessing resources (e.g., newspapers, almanacs, data bases) ☐ w
x. Community-based activities/excursions ☐ x
y. Audio-visual media (teacher use) ☐ y
z. Student media productions (e.g., video) ☐ z
aa. Other (specify) ____________________ ☐ aa

29. Which **three** of the above strategies/approaches do you consider are/will be the **most effective** and the **least effective** in promoting the development of **Student A's** literacy?

Enter corresponding letters from #28.

	Most Effective	Least Effective
	☐	☐
	☐	☐
	☐	☐

Comment:

30. Approximately how frequently (refer to Frequency Key below) do you use **each** of the following groupings with the class? How effective is each, **from your perspective**, in promoting the development of **Student A's** literacy (refer to Effectiveness Key)?

Frequency Key
1 = Often
2 = Sometimes
3 = Rarely
4 = Never

Effectiveness Key
1 = Very effective
2 = Effective
3 = Minimally effective
4 = Not effective

	Freq.		Effctvns.	
a. Class as a whole	☐	a	☐	a
b. Large group (half the class)	☐	b	☐	b
c. Small group (3 - 5 students)	☐	c	☐	c
d. Pairs	☐	d	☐	d
e. Individual	☐	e	☐	e

Use the following key to answer Question #31 and #32.

Key
1 = Yes
2 = No
3 = NA

31. Is language taught as a separate subject in your class? ☐

32. Is language learning in your classroom separated into distinct periods of time (e.g., reading writing, spelling periods)? ☐

33. Which of the following best describes the approach to language learning in your classroom? ☐

1 = Holistic (e.g., whole language, language experience)
    specify:______________________________
2 = Skills-oriented (phonics, whole-word)
    specify:______________________________
3 = Combination (specify)________________________
4 = Other (specify)____________________________
5 = Not applicable

34. Which of the above approaches in #33 have you found to be most effective in promoting the development of **Student A's** literacy? ☐

35. Please describe any other strategies/approaches as well as programs, materials and resources that you consider are helping you in working with students having literacy difficulties similar to those of **Student A**. Please include **references** to specific materials and resources.

36. Referring to the following key, please indicate how helpful your interaction with the following personnel was in providing assistance, consultation, or diagnostic information concerning **Student A**. If you did not consult with personnel or they were not available, please indicate so.

Helpful/Available Key
1 = Very helpful
2 = Somewhat helpful
3 = Not helpful
4 = Available, not consulted
5 = Not available

a. Special education teacher ☐ a
b. Resource/learning assistance teacher ☐ b
c. Consultants (e.g., ESL, Native, English, special education) ☐ c
d. Specialist(s) (e.g., speech pathologists, hearing specialists) ☐ d
e. Counselling services (e.g., social workers, psychologists, counsellors) ☐ e
f. Media resource personnel (e.g., teacher-librarian) ☐ f
g. Interpreter ☐ g
h. Home/school liaison ☐ h
i. Teacher assistant/aide ☐ i
j. Volunteer(s) in classroom ☐ j
k. Other (specify)____________________ ☐ k

37. Which of the above personnel that were **not available** to you would you have liked to call upon? Please provide up to **three** responses by entering the letters from Question #36 above. Rank in order of preference.

1st ☐
2nd ☐
3rd ☐

SECTION F - STUDENT B

38. Now we would like you to consider your **Student B**, the student with **CRITICAL COMPETENCE** difficulties. **Briefly**, jot down two or three approaches and resources that seem to be effective in promoting the development of **Student B's** literacy. You may find it helpful to refer back to Question #27 and #28, and use the given strategies/approaches in responding. Please include **references** to specific materials and resources.

SECTION G - ADDRESSING LITERACY PROBLEMS

39. How frequently do you or will you use the following in the class for information on student progress with regard to literacy (refer to Frequency Key)? For those used, please indicate how useful you think each is in giving you information about how **Student A's** literacy is developing (refer to Usefulness Key).

Frequency Key
1 = Often
2 = Sometimes
3 = Rarely
4 = Never

Usefulness Key
1 = Very useful
2 = Useful
3 = Minimally useful
4 = Useless

	Freq.		Usefulns.	
a. Observation	☐	a	☐	a
b. Diagnostic techniques (e.g., Cloze)	☐	b	☐	b
c. Reading/writing folders	☐	c	☐	c
d. Student journals	☐	d	☐	d
e. Interviews/conferences with students	☐	e	☐	e
f. Interviews/conferences with parents	☐	f	☐	f
g. Teacher-produced tests	☐	g	☐	g
h. Tests adapted from other sources	☐	h	☐	h
i. Standardized tests	☐	i	☐	i
j. Individual assignments	☐	j	☐	j
k. Student-directed projects (individual)	☐	k	☐	k
l. Group projects	☐	l	☐	l
m. Student self-evaluation	☐	m	☐	m
n. Peer evaluation	☐	n	☐	n
o. Other (specify)______________________	☐	o	☐	o

40. Which of the following would assist you and/or teachers in general **the most** in addressing the literacy difficulties of your students. Choose up to five; ranking your responses is not necessary.

1 = Resources/materials (specify)________________ ☐☐
2 = Human resources (specify)________________
3 = Lower student/teacher ratios
4 = Training/professional development opportunities
5 = Teacher autonomy (e.g., to select resources/ in-service) ☐☐
6 = Opportunity for collegial collaboration
7 = Opportunity to consult with specialists
8 = Opportunity to plan ☐☐
9 = Broader emphasis placed on language development by teachers and administrators.
10 = Parent/community education
11 = Greater coordination among people/services involved with students (e.g., parents, school, health services, social services) ☐☐
12 = Classroom-based research (specify)____________
13 = Other (specify)________________________ ☐☐

41. What does the term "literacy" mean to you?

42. The National Literacy Secretariat funded this project primarily in order to hear from Canadian teachers during International Literacy Year, 1990. As one of those teachers, what statement would you like to make about literacy and your students. (Use last page for more space.)

If you have described an approach or program about which we may wish further details and you are agreeable to being contacted, please record your name, address and phone number on the back.

TEACHERS AND LITERACY

SECONDARY SCHOOL TEACHER QUESTIONNAIRE

A Study Sponsored by the
Canadian Teachers' Federation

funded by the
National Literacy Secretariat

SOCIAL PROGRAM EVALUATION GROUP
QUEEN'S UNIVERSITY AT KINGSTON

The purpose of this questionnaire is to obtain your perspective about the range of literacy difficulties of your students and your strategies to overcome the difficulties. Our intent is not to label groups of students as illiterate, but rather to describe the context and development of literacy across all grade levels from the perspective of teachers of all subjects.

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Literacy refers to literacy in English (for this questionnaire).

All staff in your school are being asked to participate in the study. If you are a classroom teacher, please respond to all questions. If you do not teach a class, you are asked to respond to a few questions. If you do not teach in English, i.e., you teach French/German/Spanish as a Second Language or you are in a French Immersion program, please consider the English literacy of students in general while completing the questions; only some items may be applicable.

Please feel free to write comments when you feel the response choices do not allow you to give your views accurately or with flexibility.

Be assured that your responses will be treated as confidential. They will be combined with those of others in similar situations. Although comments will be used to illustrate some views, they will not be linked to any specific teacher or school. You do not need to sign the questionnaire. We trust that you will respond candidly to the questions.

As soon as possible, please enclose the completed questionnaire in the brown envelope and submit it to the individual who gave it to you.

Based on your responses, the report should make a significant contribution in highlighting the literacy concerns and recommendations of Canadian teachers in 1990--International Literacy Year.

Wendy Warren, Ed.D.
Ruth Rees, Ph.D.
Queen's University at Kingston
November, 1989

SECTION A: STAFF BACKGROUND

1. Please indicate your main role by entering in the first box the number which represents how you spend most of your time. If you have another responsibility, enter the number in the second box. ☐ ☐

   1 = Classroom teacher
   2 = Vice-principal/Assistant Principal
   3 = Principal
   4 = Guidance Counsellor
   5 = Department Head or equivalent
   6 = Assistant or Associate Department Head
   7 = Teaching Assistant
   8 = Resource Teacher
   9 = Librarian
   0 = Other (please specify)____________________

2. Are you:

   1 = Male?
   2 = Female? ☐

3. As of June 30, 1990, how many years will you have taught at the:

   Elementary level ☐☐
   Secondary level ☐☐
   Other (specify) ☐☐

   ____

   Total ☐☐

4. Please indicate your degree(s) and/or diploma(s) by placing a check mark in the appropriate box(es).

   a. Diploma in technical education ☐ a
   b. Teaching diploma ☐ b
   c. BEd ☐ c
   d. BA, BSc or equivalent ☐ d
   e. MEd ☐ e
   f. MA, MSc or equivalent ☐ f
   g. Doctorate ☐ g
   h. Other (specify)____________________ ☐ h

5. Please describe each class you teach by indicating the subject, grade(s) and classification. Each class should be described on a separate line. Classify each course using the following codes: U = university preparation; N = non-university preparation; U/N = combination; S = special education; E = ESL; O = Other, please specify in margin. Select one of the broad classifications even though the terms may be different in your province.

Example:

Subject	**Grade**	**Class'n**
Phys.Ed.	11	U/N

Subject	Grade	Class'n

If you do not teach a class, please GO TO QUESTION #36 ON PAGE 12.

For the rest of this questionnaire please concentrate on the most recent class you taught prior to beginning this questionnaire.

6. Describe the class by entering the subject you teach to this class, the grade, classification, and enrolment. Indicate the classification using the codes in question #5: U = university preparation; N = non-university preparation; U/N = combination; S = special education; E = ESL; O = other, please specify below.

Example:

Subject	**Grade**	**Class'n**	**Enrolment**
History	9	N	25

Subject	Grade	Class'n	Enrolment

SECTION B - PREVALENCE OF LITERACY DIFFICULTIES

PLEASE RESPOND TO QUESTIONS 7 - 10 USING THE LITERACY GUIDE WHICH WE ASK YOU TO REMOVE FROM THE CENTRE OF THE QUESTIONNAIRE.

7. Approximately how many students in your class are having **BASIC COMPETENCE** difficulties (in at least one of the four areas) different from what you would expect, given the age of the students? Enter the number of students in the box(es).

#

8. Approximately how many of the students identified in #7 above have difficulties with each of the following (you may have students with difficulties in more than one area):

#

Reading
Writing
Oral Communication
Mathematics

9. Approximately how many students in your class are having **CRITICAL COMPETENCE** difficulties (in at least one of the four areas) different from what you would expect, given the age of the students? (Exclude any students counted in #7 above.)

#

10. Approximately how many of the students identified in #9 above have difficulties with each of the following (you may have students with difficulties in more than one area):

#

Reading
Writing
Oral Communication
Mathematics

If none of your students has BASIC or CRITICAL COMPETENCE difficulties, please proceed to Question #36 on page 12.

SECTION C - BACKGROUND OF STUDENTS WITH LITERACY DIFFICULTIES

The next five questions focus on the background of students you have identified as having difficulties with BASIC and/or CRITICAL COMPETENCE.

11. If you think that cultural differences have affected the literacy development in the students you have identified as having difficulties, please give the number of students affected and describe their cultural background(s) below. # ☐☐

For how many of the students identified as having difficulties (BASIC and/or CRITICAL COMPETENCE) has their literacy development been affected by the following (enter a 0 0 if none of the students can be so identified):

	#
12. learning English as a second language	☐☐
13. speaking/hearing a language other than English at home	☐☐
14. learning English as a second dialect	☐☐

15. How many of the students having difficulties have been formally identified (assessed by a specialist) as having an impairment or a disability that affects their learning? ☐☐

16. Please describe other factors that you think may have affected the students' development of literacy.

SECTION D - TWO STUDENTS WITH LITERACY DIFFICULTIES

Many of the remaining questions will focus on two particular students in the class you have been describing. For each of the two categories (**BASIC** and **CRITICAL COMPETENCE**), think of one student who is having difficulty.„ Please choose the two students whose literacy difficulties are somewhat representative of other students having literacy difficulties. Call the student having **BASIC COMPETENCE** difficulties **Student A**, and the other having **CRITICAL COMPETENCE** difficulties **Student B**.

17. Describe each student by referring to the following keys:

Gender	**Age in Relation to Class**	**Parents' Occupations**
1 = Male	1 = Average	1 = Unskilled
2 = Female	2 = Older	2 = Skilled
	3 = Younger	3 = White collar
		4 = Professional/executive
		5 = Unemployed
		6 = Other (specify) ______
		7 = Don't know

	Student A	**Student B**
Gender	☐	☐
Age	☐	☐
Mother's Occupation	☐	☐
Father's Occupation	☐	☐

18. If you think that cultural differences have affected the English literacy development of the students please give the cultural backgrounds.

Student A:

Student B:

Do you think that the following have affected their literacy?

Key
1 = Yes
2 = No

	Student A	**Student B**
19. learning English as a second language?	☐	☐
20. speaking/hearing a language other than English at home?	☐	☐
21. learning English as a second dialect?	☐	☐

22. Have the students been formally identified (assessed by a specialist) as having a specific impairment or disability?

	Student A	**Student B**
Key 1 = Yes 2 = No	☐	☐
If "Yes", specify: 1 = Visually impaired 2 = Hearing impaired 3 = Emotionally/behaviourally disturbed 4 = Mentally handicapped 5 = Learning disabled 6 = Combination (specify)______________ 7 = Other (specify)____________________	☐	☐

23. What factors other than those previously presented (culture, language learning, disabilty) do you think have contributed to the literacy difficulties of **Student A** and/or **Student B** (e.g., social/emotional factors, lack of early identification/ intervention)?

Student A:

Student B:

From Section B on, we wish to obtain an idea of the number of students in your specified class who are having difficulties in English literacy and details about those difficulties. We recognize that literacy is complex, developmental and related to culture and background. For purposes of this study, however, please refer to the following Literacy Guide and consider two categories of literacy, BASIC COMPETENCE and CRITICAL COMPETENCE, each encompassing four areas: reading, writing, oral communication and mathematics. Although we have outlined a general description within each area, we ask that you consider them in relation to tasks pertinent to the curriculum in your particular grade as you answer the questions.

LITERACY GUIDE

A BASIC COMPETENCE

Reading - understanding word meanings and concepts presented in uncomplicated contexts

Writing - using sentences with common words to express simple ideas and content

Oral Communication - listening and comprehending; expressing straightforward information and ideas in varying contexts

Mathematics - applying basic concepts and calculations to solve routine problems

B CRITICAL COMPETENCE

Reading - analyzing and evaluating what has been read

Writing - writing appropriately for audience and elaborating ideas and content

Oral Communication - listening interpretively; articulating ideas in an organized way

Mathematics - analyzing and applying appropriate strategies to solve complex problems

---

REMOVE THIS PAGE FOR EASY REFERENCE BEGINNING WITH SECTION B.

Please refer to Literacy Guide for Question #24 and #25.

24. In what areas are the students having difficulties? Please specify by placing **check marks** in the boxes.

	Student A	Student B
Reading	☐	☐
Writing	☐	☐
Oral Communication	☐	☐
Mathematics	☐	☐

25. What areas are those of particular strength for the students? Please specify by placing **check marks** in the boxes.

Reading	☐	☐
Writing	☐	☐
Oral Communication	☐	☐
Mathematics	☐	☐

26. On what are you mainly basing your assessment about the students' difficulties? Your response in the first box represents the main factor; the others, secondary factors.

1 = Observation of student performance (e.g., written and oral work)
2 = Specialist's assessment
3 = Teacher-prepared tests
4 = Standardized tests
5 = Colleague's judgement
6 = Other (specify) ____________________
7 = Other (specify) ____________________

☐	Main	☐
☐		☐
☐		☐

Comment:

SECTION E - STRATEGIES AND RESOURCES

In this section we wish to explore the strategies that you have used and your perception of their results to date with **Student A.**

27. What actions have you taken or are you taking and what is your perception of their effectiveness in promoting the development of **Student A's** literacy? Please use the following key to respond in each box.

1 = Tried with significant improvement
2 = Tried with some improvement
3 = Tried with no improvement
4 = Not tried even though possible
5 = Not tried; not possible

a. consulted with parents to obtain their help ☐ a

b. sent extra/special work home with student ☐ b

c. consulted a specialist (e.g., resource teacher) (specify)____________________ ☐ c

d. referred student to specialist (specify) ____________________ ☐ d

e. follow program recommended by specialist ☐ e

f. work one-to-one with student ☐ f

g. tutor (peer, older student, adult) assists student ☐ g

h. present material differently to student (e.g., orally instead of printed) ☐ h

i. change the type of material used with student ☐ i

j. change the physical arrangement of the classroom (specify)____________________ ☐ j

k. allow student to present work differently ☐ k

l. reduce amount of work expected of student ☐ l

m. have student work with computer software (specify) ____________________ ☐ m

n. developed a special program for the student (specify)____________________ ☐ n

o. other (specify)____________________ ☐ o

Comment:

28. Approximately how frequently (refer to Frequency Key below) do you use **each** teaching strategy/approach with the class as a whole (specified in Question #6)?

Frequency Key
1 = Every day
2 = 2 - 3 times/week
3 = 2 - 3 times/month
4 = Once in 1 month
5 = Once in 3 months
6 = Never

a. Lecture/teacher presentation/demonstration ☐ a
b. Teacher-led questioning and class discussion ☐ b
c. Review of content previously taught ☐ c
d. Seatwork involving practice and drill ☐ d
e. Audio-visual media (teacher use) ☐ e
f. Oral reading by students ☐ f
g. Oral reading by teacher ☐ g
h. Silent reading by students (teacher-assigned) ☐ h
i. Silent reading by students (self-selected, self-sustained) ☐ i
j. Student presentations/debates/panels ☐ j
k. Student media productions (e.g., video) ☐ k
l. Drama/role play ☐ l
m. Art/music ☐ m
n. Simulation/games ☐ n
o. Teacher conferencing with individuals ☐ o
p. Writing/learning on computer ☐ p
q. Project work (individual or group) ☐ q
r. Cooperative learning activities/group work ☐ r
s. Testing ☐ s
t. Community-based activities/excursions ☐ t
u. Student writing (process, activities, publishing) ☐ u
v. Student accessing resources (e.g., indexes, periodicals, data bases) ☐ v
w. Student experiments/research ☐ w
x. Other (specify) ______________________________ ☐ x

29. Which **three** of the above strategies/approaches do you consider are/will be the **most effective** and the **least effective** in promoting the development of **Student A's** literacy?

Enter corresponding letters from #28.

Most Effective	Least Effective
☐	☐
☐	☐
☐	☐

Comment:

30. Approximately how frequently (refer to Frequency Key below) do you use each of the following groupings with the class? How effective is each, from your perspective, in promoting the development of Student A's literacy (refer to Effectiveness Key)?

Frequency Key
1 = Often
2 = Sometimes
3 = Rarely
4 = Never

Effectiveness Key
1 = Very effective
2 = Effective
3 = Minimally effective
4 = Not effective

	Freq.		**Effctvns.**	
a. Class as a whole	☐	a	☐	a
b. Large group (half the class)	☐	b	☐	b
c. Small group (3 - 5 students)	☐	c	☐	c
d. Pairs	☐	d	☐	d
e. Individual	☐	e	☐	e

Comment:

31. Please describe any other strategies/approaches as well as programs, materials, and resources that you consider are helping you in working with students having literacy difficulties similar to those of Student A. Please include references to specific materials and resources.

32. Referring to the following key, please indicate how helpful your interaction with the following personnel was in providing assistance, consultation, or diagnostic information concerning **Student A**. If you did not consult with personnel or they were not available, please indicate so.

Helpful/Available Key
1 = Very helpful
2 = Somewhat helpful
3 = Not helpful
4 = Available, not consulted
5 = Not available

a. Special education teacher ☐ a
b. Resource/learning assistance teacher ☐ b
c. Consultants (e.g., ESL, Native, English, special education) ☐ c
d. Specialist(s) (e.g., speech pathologists, hearing specialists) ☐ d
e. Counselling services (e.g., social workers, psychologists, counsellors) ☐ e
f. Media resource personnel (e.g., teacher-librarian) ☐ f
g. Interpreter ☐ g
h. Home/school liaison ☐ h
i. Teacher assistant/aide ☐ i
j. Volunteer(s) in classroom ☐ j
k. Other (specify)________________________ ☐ k

33. Which of the above personnel that were **not available** to you would you have liked to call upon? Please provide up to **three** responses by entering the letters from Question #32. Rank in order of preference.

1st ☐
2nd ☐
3rd ☐

SECTION F - STUDENT B

34. Now we would like you to consider your **Student B**, the student with **CRITICAL COMPETENCE** difficulties. Briefly, jot down two or three approaches and resources that seem to be effective in promoting the development of **Student B**'s literacy. You may find it helpful to refer back to Questions 27 and 28 and use the given strategies/approaches in responding. Please include **references** to specific materials and resources.

SECTION G - ADDRESSING LITERACY PROBLEMS

35. How frequently do you or will you use the following in the class for information on student progress with regard to literacy (refer to Frequency Key)? For those used, please indicate how useful you think each is in giving you information about how **Student A's** literacy is developing (refer to Usefulness Key).

Frequency Key
1 = Often
2 = Sometimes
3 = Rarely
4 = Never

Usefulness Key
1 = Very useful
2 = Useful
3 = Minimally useful
4 = Useless

	Freq.		Usefulns.	
a. Observation	☐	a	☐	a
b. Diagnostic techniques (e.g., Cloze)	☐	b	☐	b
c. Reading/writing folders	☐	c	☐	c
d. Student journals	☐	d	☐	d
e. Interviews/conferences with students	☐	e	☐	e
f. Interviews/conferences with parents	☐	f	☐	f
g. Teacher-produced tests	☐	g	☐	g
h. Tests adapted from other sources	☐	h	☐	h
i. Standardized tests	☐	i	☐	i
j. Individual assignments	☐	j	☐	j
k. Student-directed projects (individual)	☐	k	☐	k
l. Group projects	☐	l	☐	l
m. Student self-evaluation	☐	m	☐	m
n. Peer evaluation	☐	n	☐	n
o. Other (specify)________________________	☐	o	☐	o

36. Which of the following would assist you and/or teachers in general **the most** in addressing the literacy difficulties of your students? Choose up to five; ranking your responses is not necessary.

1 = Resources/materials (specify)________________
2 = Human resources (specify)________________
3 = Lower student/teacher ratios
4 = Training/professional development opportunities
5 = Teacher autonomy (e.g., to select resources/ in-service)
6 = Opportunity for collegial collaboration
7 = Opportunity to consult with specialists
8 = Opportunity to plan
9 = Broader emphasis placed on language development by teachers and administrators
10 = Parent/community education
11 = Greater coordination among people/services involved with students (e.g., parents, school, health services, social services)
12 = Classroom-based research (specify)____________
13 = Other (specify)________________________

☐☐
☐☐
☐☐
☐☐
☐☐

37. What does the term "literacy" mean to you?

38. In comparison with 10 years ago, have you noticed any changes in the numbers of your students becoming literate and/or in the quality of their literacy? (Use your definition of literacy).

0 = Did not teach 10 years ago ☐

Quantity
1 = more students are literate ☐
2 = fewer students are literate
3 = no change
4 = don't know

Quality
1 = quality of literacy is higher ☐
2 = quality of literacy is lower
3 = no change
4 = don't know

Comment:

39. The National Literacy Secretariat funded this project primarily in order to hear from Canadian teachers during International Literacy Year, 1990. As one of those teachers, what statement would you like to make about literacy and your students. (Use last page for more space.)

If you have described an approach or program about which we may wish further details and you are agreeable to being contacted, please record your name, address and phone number on the back.

TEACHERS AND LITERACY

PRINCIPAL QUESTIONNAIRE

A Study Sponsored by the
Canadian Teachers' Federation

funded by the
National Literacy Secretariat

SOCIAL PROGRAM EVALUATION GROUP
QUEEN'S UNIVERSITY AT KINGSTON

1. How many years will you have been a principal as of June 30, 1990? ☐☐

2. Please describe the main area served by your school. ☐

   1 = small town/rural (<10,000)
   2 = town (10,000 - 19,999)
   3 = small city (20,000 - 49,999)
   4 = medium-sized city (50,000 - 199,999)
   5 = large city (200,000 - 499,999)
   6 = suburb of large city
   7 = metropolitan area (>500,000)
   8 = suburb of metropolitan area

3. Generally what is the socioeconomic level of the students in your school? Please estimate the approximate proportions of students in each category.

	%
High	☐☐
Middle	☐☐
Low	☐☐

4. What does the term "literacy" mean to you?

5. Do you promote literacy in your school by means of the following?

   1 = Yes
   2 = No

   a. through staff development activities ☐
   b. conferencing with individual teachers about their approach ☐
   c. use of themes (e.g., Literacy Day, Library Week, Authors' Days) ☐
   d. school announcements (please give examples below) ☐
   e. other (specify)________________________________ ☐

   Comment:

6. Is the development of literacy specified as a formal objective of your school?

Yes ☐
No ☐

If 'Yes', what are some indicators you use in assessing how well teachers are striving to meet that objective?

7. Do you have any plans for special activities in your school to commemorate International Literacy Year (1990)? Please describe them below.

8. Please forward any relevant documents (e.g., statements, memos about language across the curriculum) which would give us an idea of your approach to literacy.

Thank you for being part of this study.

Please enclose the completed questionnaire in the brown envelope and submit it to the individual who gave it to you.

APPENDIX B: QUESTIONNAIRE RETURN FORM

Please complete the following to return with the completed questionnaires in case we need to contact you.

School:______________________________ Tel: No.__________ FAX No.__________

City/Town:____________________ Prov: __________ Postal Code:____________

Names: Principal_____________________ Rep./Delegate_________________

It is important that the Queen's University research team be able to report accurately the reasons for non-returns.

If some questionnaires were not returned, or staff refused to take one to complete, please ask why, record the reasons and in the box beside each reason enter the corresponding number of teachers.

Total number of questionnaires distributed (should equal total staff; if not, record the number of staff who did not accept a questionnaire) ☐☐

☐☐

Reasons for not completing:

1. not interested in commenting on literacy ☐☐
2. put off by questionnaire substance ☐☐
3. no time, other priorities ☐☐
4. illness, family crisis ☐☐
5. claimed 'not applicable' because: ☐☐

____ ☐☐

____

6. other (please specify) ☐☐

____

Total refusals ☐☐

Returns to date ☐☐

Still expected ☐☐

Total staff ☐☐

Return date of package to Queen's ________________

Expected date of late returns ____________________

(Please photocopy this form; update the figures and include the copy with the late returns as close to January 15 as possible.)

Thank you very much for your work on this study. We hope that you have felt some satisfaction in contributing toward its success.

APPENDIX C:

TABLES OF PRINCIPALS' INFORMATION

TABLE C-1: PRINCIPALS' YEARS OF EXPERIENCE

TABLE C-2: AREA SERVED BY SCHOOLS OF TEACHER RESPONDENTS

TABLE C-3: AVERAGE PERCENTAGE OF STUDENTS IN DIFFERENT SOCIO-ECONOMIC LEVELS

TABLE C-1: PRINCIPALS' YEARS OF EXPERIENCE[*]

Years	Frequency	Percentage
0-4	98	23
5-9	80	19
10-14	99	23
15-19	67	16
20-24	50	12
25 or more	37	9
Total	431	12 (mean)

[*] As of June 30, 1990.

TABLE C-2: AREA SERVED BY SCHOOLS[*] OF TEACHER RESPONDENTS

Size	SCHOOLS	
	#	%
Small town-rural (<10,000)	187	45
Town (10,000-19,999)	37	9
Small city (20,000-49,999)	47	11
Medium city (50,000-199,999)	69	16
Large city (200,000-499,999)	27	6
Large city-suburb	20	5
Metropolitan area (more than 500,000)	25	6
Metropolitan area-suburb	8	2
Total	420	100

[*] As reported by principals

TABLE C-3: AVERAGE PERCENTAGE OF STUDENTS IN DIFFERENT SOCIO-ECONOMIC LEVELS[*]

SES Level	Average % of Students
High	11
Middle	58
Low	31

[*] As reported by principals.

APPENDIX D:

TABLES OF TEACHERS' RESPONSES

TABLE D-1: SECONDARY SCHOOL TEACHERS COMPARE STUDENTS' LITERACY TODAY AND 10 YEARS AGO, BY REGION (in %)

TABLE D-2: SECONDARY SCHOOL TEACHERS COMPARE THE QUALITY OF STUDENTS' LITERACY TODAY AND 10 YEARS AGO, BY REGION (in %)

TABLE D-3: PROPORTION OF STUDENTS WITH LITERACY DIFFICULTIES AND RANGES WITHIN 95% CONFIDENCE INTERVALS, BY CLASS SIZE

TABLE D-4: PROPORTION OF STUDENTS WITH LITERACY DIFFICULTIES AND RANGES WITHIN 95% CONFIDENCE INTERVALS, BY GRADES

TABLE D-5: PROPORTION OF STUDENTS WITH LITERACY DIFFICULTIES AND RANGES WITHIN 95% CONFIDENCE INTERVALS, BY COMMUNITY SIZE

TABLE D-6: PROPORTION OF STUDENTS WITH LITERACY DIFFICULTIES AND RANGES WITHIN 95% CONFIDENCE INTERVALS, BY SOCIO-ECONOMIC STATUS

TABLE D-7: MAIN BASIS FOR ASSESSING STUDENTS' BASIC AND CRITICAL LITERACY DIFFICULTIES, BY REGION

TABLE D-8: AGE OF SELECTED STUDENTS RELATIVE TO CLASS AVERAGE, BY REGION AND ACROSS CANADA

TABLE D-9: STUDENTS WITH DIFFICULTIES BY LEVEL OF DIFFICULTY, PARENT OCCUPATION AND REGION

TABLE D-10: TEACHERS REPORTING AREAS OF LITERACY DIFFICULTIES, OF SELECTED STUDENTS, BY REGION AND ACROSS CANADA

TABLE D-11: TEACHERS' REPORTING AREAS OF STRENGTHS EXHIBITED BY SELECTED STUDENTS WITH LITERACY DIFFICULTIES, BY REGION AND ACROSS CANADA

TABLE D-12: TEACHING STRATEGIES/APPROACHES BY FREQUENCY OF USE

TABLE D-13: TEACHERS' FREQUENCY OF USING STRATEGIES/APPROACHES, IN KINDERGARTEN TO GRADE 3 AND GRADES 4-6

TABLE D-14: TEACHERS' FREQUENCY OF USING STRATEGIES/APPROACHES, IN GRADES 7-9 AND 10-12

TABLE D-15: TEACHING STRATEGIES IDENTIFIED BY EFFECTIVENESS AND TEACHER STYLE

TABLE D-16: EFFECTIVENESS OF GROUPINGS K-3 TEACHERS USE WITH STUDENTS (SELECTED) HAVING BASIC LITERACY DIFFICULTIES

TABLE D-17: EFFECTIVENESS OF GROUPINGS 4-6 TEACHERS USE WITH STUDENTS (SELECTED) HAVING BASIC LITERACY DIFFICULTIES

TABLE D-18: EFFECTIVENESS OF GROUPINGS 7-9 TEACHERS USE WITH STUDENTS (SELECTED) HAVING BASIC LITERACY DIFFICULTIES

TABLE D-19: EFFECTIVENESS OF GROUPINGS 10-12 TEACHERS USE WITH STUDENTS (SELECTED) HAVING BASIC LITERACY DIFFICULTIES

TABLE D-20: FREQUENCY WITH WHICH TEACHERS USED METHODS TO ASSESS THE PROGRESS OF THE SELECTED STUDENT WITH BASIC LITERACY DIFFICULTIES, AND USEFULNESS OF ASSESSMENT METHODS

TABLE D-21: FREQUENCY WITH WHICH K-3 TEACHERS USED METHODS TO ASSESS THE PROGRESS OF THE SELECTED STUDENT WITH BASIC LITERACY DIFFICULTIES, AND USEFULNESS OF ASSESSMENT METHODS

TABLE D-22: FREQUENCY WITH WHICH 4-6 TEACHERS USED METHODS TO ASSESS THE PROGRESS OF THE SELECTED STUDENT WITH BASIC LITERACY DIFFICULTIES, AND USEFULNESS OF ASSESSMENT METHODS

TABLE D-23: FREQUENCY WITH WHICH 7-9 TEACHERS USED METHODS TO ASSESS THE PROGRESS OF THE SELECTED STUDENT WITH BASIC LITERACY DIFFICULTIES, AND USEFULNESS OF ASSESSMENT METHODS

TABLE D-24: FREQUENCY WITH WHICH 10-12 TEACHERS USED METHODS TO ASSESS THE PROGRESS OF THE SELECTED STUDENT WITH BASIC LITERACY DIFFICULTIES, AND USEFULNESS OF ASSESSMENT METHODS

TABLE D-25: TEACHERS INDICATING FIVE OPTIONS WHICH WOULD HELP IN ADDRESSING STUDENTS' LITERACY DIFFICULTIES, BY GRADE

TABLE D-1: SECONDARY SCHOOL TEACHERS (n=1485) COMPARE STUDENTS' LITERACY TODAY AND 10 YEARS AGO, BY REGION (in %)

	MORE STUDENTS LITERATE	FEWER STUDENTS LITERATE	NO CHANGE	DON'T KNOW
Western Provinces	25%	36	25	14
Ontario	23	35	26	16
Quebec	32	43	20	6
Atlantic Canada	31	39	20	10
Canada	27	37	23	13

(X^2=25.5 df=9 p<.01)

TABLE D-2: SECONDARY SCHOOL TEACHERS (n=1476) COMPARE THE QUALITY OF STUDENTS' LITERACY TODAY AND 10 YEARS AGO, BY REGION (in %)

	HIGHER QUALITY	LOWER QUALITY	NO CHANGE	DON'T KNOW
Western Provinces	26%	41	18	15
Ontario	19	43	23	16
Quebec	29	50	15	6
Atlantic Canada	28	43	20	9
Canada	26	43	19	13

X^2=28.8 df=9 p<.01

TABLE D-3: PROPORTION OF STUDENTS WITH LITERACY DIFFICULTIES AND RANGES WITHIN 95% CONFIDENCE INTERVALS, BY CLASS SIZE

LITERACY DIFFICULTIES	CLASS SIZE	% OF STUDENTS IN A CLASS WITH PROBLEMS	95% CONFIDENCE INTERVAL
Basic	1 - 15	38.3	31.5 - 45.2
	> 15	17.1	16.5 - 17.7
Critical	1 - 15	13.7	10.4 - 17.6
	> 15	12.0	11.5 - 12.5

TABLE D-4: PROPORTION OF STUDENTS WITH LITERACY DIFFICULTIES AND RANGES WITHIN 95% CONFIDENCE INTERVALS, BY GRADES

LITERACY DIFFICULTIES	GRADES	% OF STUDENTS IN A CLASS WITH PROBLEMS	95% CONFIDENCE INTERVAL
Basic	K-3	18.5	17.5 - 19.6
	4-6	20.7	19.5 - 21.9
	7-9	18.6	17.1 - 20.0
	10-12*	13.3	12.0 - 14.7
Critical	K-3	9.9	9.1 - 10.7
	4-6	15.5	14.5 - 22.2
	7-9	12.7	11.6 - 13.8
	10-12*	10.6	9.5 - 11.7

*Teachers of Ontario Academic Credits (OAC, formerly Grade 13 courses) were included in the 10-12 category.

TABLE D-5: PROPORTION OF STUDENTS WITH LITERACY DIFFICULTIES AND RANGES WITHIN 95% CONFIDENCE INTERVALS, BY COMMUNITY SIZE

LITERACY DIFFICULTIES	COMMUNITY SIZE	% OF STUDENTS IN A CLASS WITH PROBLEMS	95% CONFIDENCE INTERVAL
Basic	< 20,000	18.3	17.3 - 19.4
	> 20,000	17.9	16.9 - 18.8
Critical	< 20,000	12.7	11.9 - 13.6
	> 20,000	11.5	10.8 - 12.2

TABLE D-6: PROPORTION OF STUDENTS WITH LITERACY DIFFICULTIES AND RANGES WITHIN 95% CONFIDENCE INTERVALS, BY SOCIO-ECONOMIC STATUS

LITERACY DIFFICULTIES	SOCIO-ECONOMIC STATUS	% OF STUDENTS IN A CLASS WITH PROBLEMS	95% CONFIDENCE INTERVAL
Basic	Low	23.1	21.2 - 24.7
	Middle	17.6	16.4 - 18.8
	High	15.2	14.0 - 16.2
Critical	Low	14.2	13.1 - 15.3
	Middle	11.5	10.5 - 12.5
	High	10.9	10.1 - 11.8

TABLE D-7: MAIN BASIS FOR ASSESSING STUDENTS' BASIC AND CRITICAL LITERACY DIFFICULTIES, BY REGION

	LEVEL OF COMPETENCE DIFFICULTY							
	BASIC				CRITICAL			
	WEST. CAN.	ONT.	QUE.	ATL. CAN.	WEST. CAN.	ONT.	QUE.	ATL. CAN.
Observation	86%	90	82	86	85	87	82	84
Specialist	8	6	8	9	7	7	7	8
Teacher Tests	3	3	7	4	4	4	8	6
Standardized Tests	1	0	2	1	2	0	2	1
Colleague's Judgement	1	0	0	0	1	1	0	1
Other	1	1	1	1	1	1	1	1

TABLE D-8: AGE OF SELECTED STUDENTS RELATIVE TO CLASS AVERAGE, BY REGION AND ACROSS CANADA

	LEVEL OF COMPETENCE DIFFICULTY					
	BASIC			CRITICAL		
	AVERAGE	OLDER	YOUNGER	AVERAGE	OLDER	YOUNGER
Western Canada	71%	24	5	76	20	4
Ontario	78	16	6	82	12	6
Quebec	70	25	4	75	20	5
Atlantic Canada	67	28	5	71	25	4
Canada	71	24	5	76	20	5

Basic: $X^2=36.4$ df=6 $p<.01$; Critical: $X^2=41.9$ df=6 $p<.01$

TABLE D-9: STUDENTS WITH DIFFICULTIES BY LEVEL OF DIFFICULTY[1], PARENT OCCUPATION[2] AND REGION

	Western Canada		Ontario		Quebec		Atlantic Canada		TOTAL	
	Student		Student		Student		Student		Student	
	A[*]	B[*]	A	B	A	B	A	B	A	B
Unskilled	31%	28	27	24	31	28	40	36	33	29
Skilled	25	25	22	22	15	18	19	24	21	23
White collar	6	7	7	9	4	5	7	6	6	7
Professional/executive	5	5	9	10	8	9	6	6	6	7
Unemployed	4	3	2	1	3	1	5	4	4	3
Other/Don't know	29	31	31	33	39	38	22	24	30	31

[*] A refers to students with basic literacy difficulties.

[*] B refers to students with critical literacy difficulties.

TABLE D-10: TEACHERS REPORTING AREAS OF LITERACY DIFFICULTIES, OF SELECTED STUDENTS, BY REGION AND ACROSS CANADA

	READING		WRITING		ORAL COMMUNICATION		MATHEMATICS	
	A[*]	B[+]	A	B	A	B	A	B
Western Canada	83%	73	84	77	57	50	54	51
Ontario	81	71	84	79	56	51	54	50
Quebec	83	75	84	80	52	43	55	53
Atlantic Canada	84	74	82	78	55	51	58	55
Canada	83	73	84	78	56	50	58	52

[*] A refers to students with basic literacy difficulties.
[+] B refers to students with critical literacy difficulties

TABLE D-11: TEACHERS REPORTING AREAS OF STRENGTHS EXHIBITED BY SELECTED STUDENTS WITH LITERACY DIFFICULTIES, BY REGION AND ACROSS CANADA

	READING		WRITING		ORAL COMMUNICATION		MATHEMATICS	
	A[*]	B[+]	A	B	A	B	A	B
Western Canada	12%	19	9	12	44	48	39	34
Ontario	11	19	7	11	45	48	33	29
Quebec	12	17	8	10	42	46	38	41
Atlantic Canada	13	19	10	11	45	43	36	32
Canada	12	18	8	11	44	47	37	34

[*] A refers to students with basic literacy difficulties.
[+] B refers to students with critical literacy difficulties

TABLE D-12: TEACHING STRATEGIES/APPROACHES BY FREQUENCY OF USE

Strategies/Approaches	At least twice/week	2-3 times/ month	Once every 1-3 months	Never
All teachers: (n=4038)*				
Teacher-led questions and class discussion	93%	5	2	2
Lecture/teacher presentation demonstration	90	6	2	1
Review of content previously taught	86	11	3	-
Seatwork involving practice and drill	84	8	4	4
Oral reading by teacher	73	13	8	6
Silent reading by students (teacher assigned)	67	15	8	10
Silent reading by students (self-selected, self-sustained)	63	11	10	16
Oral reading by students	63	16	10	11
Student writing (process, activities, publishing)	52	21	14	14
Teacher conferencing with individuals	51	22	22	6
Cooperative learning activities/ group work	48	29	19	5
Art/music	48	15	12	26
Audio-visual media	29	38	28	6
Writing/learning on computer	22	18	14	47
Project work	21	27	41	11
Student experiments/research	18	26	37	19
Drama/role play	14	22	36	28
Student accessing resources	14	19	38	29
Student media productions	3	6	27	65
Community-based activities/ excursions	3	6	63	29
Simulation/games**	8	12	37	44
Elementary teachers only: (n=2644)*				
Thematic unit work	76	11	10	3
Reading group activities	76	11	4	9
Shared reading experiences	65	21	8	6
Manipulative experiences	63	20	12	5
Assisted reading	53	17	12	18
Dictated stories	29	26	20	26
Secondary teachers only: (n=1399)*				
Student presentations/debates/panels	7	19	46	29
Testing	13	52	33	2

*Average number of respondents to items listed.

**Of the elementary teachers, simulations/games was addressed to only francophone teachers.

TABLE D-13: TEACHERS' FREQUENCY OF USING STRATEGIES/APPROACHES, IN KINDERGARTEN TO GRADE 3 (n=1281)* AND GRADES 4-6 (n=999)*

	At least twice/week		2-3 times/ month		Once every 1-3 months		Never	
Strategies/Approaches	K-3	4-6	K-3	4-6	K-3	4-6	K-3	4-6
Teacher-led questions and class discussion	96%	96	2	3	1	1	1	-
Lecture/teacher presentation/ demonstration	90	93	4	5	3	1	4	1
Review of content previously taught	91	87	7	11	2	1	-	-
Seatwork involving practice and drill	87	93	6	4	2	2	5	1
Oral reading by teacher	94	81	4	12	1	5	1	2
Silent reading by students (teacher assigned)	75	78	9	14	4	4	12	4
Silent reading by students (self-selected, self-sustained)	85	84	7	10	2	3	6	3
Oral reading by students	87	70	6	21	2	7	5	2
Student writing (process, activities, publishing)	69	64	19	24	7	10	5	2
Teacher conferencing with individuals	65	51	19	25	11	20	5	4
Cooperative learning activities/ group work	63	51	23	33	11	14	3	3
Art/music	80	58	14	26	3	8	3	8
Audio-visual media	31	27	40	38	25	30	4	5
Writing/learning on computer	26	26	21	24	13	17	40	33
Project work	24	22	27	30	33	45	17	3
Student experiments/research	24	20	30	35	32	39	15	7
Drama/role play	26	11	32	26	32	47	9	17
Student accessing resources	12	22	16	27	33	39	39	12
Student media productions	2	3	7	7	22	33	69	57
Community-based activities/ excursions	3	3	7	5	79	77	12	16
Simulation/games**	31	10	26	19	30	44	13	28
Thematic unit work	84	71	8	14	6	13	2	3
Reading group activities	84	70	6	16	2	7	8	8
Shared reading experiences	78	55	14	27	4	11	4	6
Manipulative experiences	82	44	12	32	4	9	2	6
Assisted reading	72	35	12	24	6	18	10	24
Dictated stories	40	17	26	27	15	25	18	31

*Average number of respondents to items listed.

**This item was addressed only to francophone teachers.

TABLE D-14: TEACHERS' FREQUENCY OF USING STRATEGIES/APPROACHES, IN GRADES 7-9 (n=859) AND 10-12* (n=692)

	At least twice/week		2-3 times/ month		Once every 1-3 months		Never	
Strategies/Approaches	7-9	10-12	7-9	10-12	7-9	10-12	7-9	10-12
All teachers:								
Teacher-led questions and class discussion	89%	87	7	9	3	4	1	1
Lecture/teacher presentation/ demonstration	91	88	6	8	2	3	2	1
Review of content previously taught	85	80	11	14	4	5	-	-
Seatwork involving practice and drill	79	70	11	16	6	6	4	8
Oral reading by teacher	58	41	20	21	14	20	9	18
Silent reading by students (teacher assigned)	58	48	19	23	12	17	12	12
Silent reading by students (self-selected, self-sustained)	42	19	14	16	17	24	28	41
Oral reading by students	49	26	22	21	17	23	13	31
Student writing (process, activities, publishing)	35	20	19	22	23	26	24	32
Teacher conferencing with individuals	40	34	23	24	31	35	7	8
Cooperative learning activities/ group work	36	28	29	34	28	30	7	8
Art/music	20	6	10	5	23	21	48	68
Audio-visual media	27	27	39	34	27	32	7	7
Writing/learning on computer	18	9	14	7	15	11	53	73
Project work	17	19	26	28	47	42	11	12
Student experiments/research	15	9	17	19	41	40	27	32
Drama/role play	6	4	12	8	35	29	46	60
Student accessing resources	11	6	18	13	40	45	30	37
Student media productions	2	2	5	5	30	23	64	71
Community-based activities/ excursions	3	2	4	4	47	36	46	57
Student presentations/debates/panels	6	7	18	19	48	46	28	29
Simulation/games	8	7	14	9	40	34	38	50
Testing	16	10	50	55	32	33	3	2
Elementary teachers only:								
Thematic unit work	60	-	13	-	23	-	4	-
Reading group activities	59	-	15	-	11	-	15	-
Shared reading experiences	39	-	27	-	17	-	17	-
Manipulative experiences	35	-	22	-	25	-	18	-
Assisted reading	23	-	17	-	23	-	37	-
Dictated stories	11	-	15	-	25	-	49	-

* Teachers of Ontario Academic Credits (OACs, formerly Grade 13 courses) were included in the 10-12 category.

TABLE D-15: TEACHING STRATEGIES IDENTIFIED BY EFFECTIVENESS AND TEACHER STYLE

	All teachers		Teacher-directed*		Student-centred+	
	Most Eff.	Least Eff.	Most Eff.	Least Eff.	Most Eff.	Least Eff.
All teachers: (n=4124)						
Review of content previously taught	25%	2	28	2	17	3
Seatwork involving practice and drill	24	14	27	12	14	19
Teacher-led questioning and class discussion	23	7	26	6	17	12
Teacher conferencing with individuals	19	2	19	2	21	2
Student writing (process, activities, publishing)	19	5	17	5	25	4
Cooperative learning/group work	18	6	16	7	25	4
Lecture/teacher presentation/ demonstration	16	24	18	21	12	31
Oral reading by students	10	9	11	9	7	10
Oral reading by teacher	9	7	8	7	11	5
Project work	8	10	7	11	10	8
Silent reading by students (self-selected)	7	10	7	10	8	10
Silent reading by students (teacher assigned)	6	16	7	16	6	18
Writing/learning on computer	6	6	5	6	7	6
Audio-visual media	4	7	5	6	3	8
Drama/role play	4	11	4	11	4	9
Student experiments/research	3	9	3	10	5	5
Student accessing resources (e.g. indexes, periodicals, data bases	1	18	1	18	2	18
Art/music	1	12	1	13	2	9
Student media productions	1	16	1	16	2	17
Community-based activities/excursions	1	12	1	12	2	11
Simulation/games**	4	8	4	7	4	9
Secondary teachers only: (n=1414)						
Student presentations/debates/panels	8	9	8	9	6	7
Testing	3	15	3	14	4	18
Elementary teachers only: (n=2710)						
Shared reading experiences	20	3	19	3	21	1
Manipulative experiences	18	3	17	3	21	3
Thematic unit work	13	3	12	4	16	2
Reading group activities	12	7	12	7	12	6
Assisted reading	11	6	10	6	12	6
Dictated stories	4	11	4	10	4	13

*Teacher-directed style was defined as the use of "lecture/teacher presentation" and "teacher-led questioning/discussion" up to three times per week while not using at least two of the following at least twice a week: "project work", "cooperative learning/group work", "students accessing resources" and "student experiments/ research."

+Student-centred style was defined as the use of two of the following at least twice a week: "project work", "cooperative learning/group work", "students accessing resources" and "student experiments/ research."

**Of the elementary teachers, simulation/games was addressed to only francophone teachers.

TABLE D-16: EFFECTIVENESS OF GROUPINGS K-3 TEACHERS USE WITH STUDENTS (SELECTED) HAVING BASIC LITERACY DIFFICULTIES

	PERCENTAGE OF K-3 TEACHERS				
	FREQUENCY OF USE			EFFECTIVENESS	
	OFTEN	SOMETIMES	RARELY*	EFFECTIVE	NOT VERY EFFECTIVE
Whole class	79%	17	4	68	32
Large group	31	41	28	62	38
Small group	50	38	11	85	15
Pairs	39	44	17	82	18
Individual	60	32	8	88	12

*Includes never

TABLE D-17: EFFECTIVENESS OF GROUPINGS 4-6 TEACHERS USE WITH STUDENTS (SELECTED) HAVING BASIC LITERACY DIFFICULTIES

	PERCENTAGE OF GRADE 4-6 TEACHERS				
	FREQUENCY OF USE			EFFECTIVENESS	
	OFTEN	SOMETIMES	RARELY*	EFFECTIVE	NOT VERY EFFECTIVE
Whole class	79%	16	5	66	34
Large group	21	42	37	54	46
Small group	43	45	12	82	18
Pairs	43	45	12	86	14
Individual	54	37	9	86	14

*Includes never

TABLE D-18: EFFECTIVENESS OF GROUPINGS 7-9 TEACHERS USE WITH STUDENTS (SELECTED) HAVING BASIC LITERACY DIFFICULTIES

	PERCENTAGE OF GRADE 7-9 TEACHERS				
	FREQUENCY OF USE			EFFECTIVENESS	
	OFTEN	SOMETIMES	RARELY*	EFFECTIVE	NOT VERY EFFECTIVE
Whole class	80%	12	8	65	35
Large group	12	36	52	43	57
Small group	36	44	20	75	25
Pairs	34	44	22	79	21
Individual	56	31	13	83	17

*Includes never

TABLE D-19: EFFECTIVENESS OF GROUPINGS 10-12 TEACHERS USE WITH STUDENTS (SELECTED) HAVING BASIC LITERACY DIFFICULTIES*

	PERCENTAGE OF GRADE 10-12 TEACHERS				
	FREQUENCY OF USE			EFFECTIVENESS	
	OFTEN	SOMETIMES	RARELY*	EFFECTIVE	NOT VERY EFFECTIVE
Whole class	82%	11	7	64	36
Large group	10	33	57	42	58
Small group	34	45	21	77	23
Pairs	34	44	22	80	20
Individual	55	30	15	82	18

*Teachers of Ontario Academic Credits (OAC, formerly Grade 13 courses) were included in this category--Grades 10-12.

*Includes never

TABLE D-20: FREQUENCY WITH WHICH TEACHERS USED METHODS TO ASSESS THE PROGRESS OF THE SELECTED STUDENT WITH BASIC LITERACY DIFFICULTIES, AND USEFULNESS OF ASSESSMENT METHODS (IN %)

	FREQUENCY				USEFULNESS			
	Often	Sometimes	Rarely	Never	Very Useful	Useful	Min. Useful	Useless
Observation	90%	9	1	-	78	20	2	-
Individual assignments	62	29	6	3	51	39	7	2
Reading/writing folders	48	26	9	17	46	36	11	7
Teacher-produced tests	46	37	11	6	35	48	13	4
Student journals	37	20	12	30	37	33	17	13
Interviews/conferences with students	37	48	11	3	43	45	10	2
Student-directed projects (individual)	31	42	18	8	34	47	14	5
Group projects	21	50	20	9	19	50	25	6
Interviews/conferences with parents	17	59	19	5	28	47	21	5
Diagnostic techniques (e.g., Cloze)	16	42	22	20	24	48	21	8
Tests adapted from other sources	15	34	28	23	15	42	30	13
Student self-evaluation	13	33	31	23	16	41	30	12
Standardized tests	7	24	36	33	11	35	35	19
Peer evaluation	5	25	31	39	8	32	36	24

TABLE D-21: FREQUENCY WITH WHICH K-3 TEACHERS USED METHODS TO ASSESS THE PROGRESS OF THE SELECTED STUDENT WITH BASIC LITERACY DIFFICULTIES, AND USEFULNESS OF ASSESSMENT METHODS (IN %)

	FREQUENCY				USEFULNESS			
	Often	Sometimes	Rarely	Never	Very Useful	Useful	Min. Useful	Useless
Observation	95%	5	-	-	88	11	1	-
Reading/writing folders	61	26	5	8	57	33	6	4
Individual assignments	55	32	8	5	46	41	9	4
Student journals	52	18	9	21	49	29	12	11
Interviews/conferences with students	41	44	11	3	47	41	11	2
Student-directed projects (individual)	30	43	18	8	34	46	16	6
Teacher-produced tests	29	40	19	12	27	45	20	8
Interviews/conferences with parents	23	62	13	2	34	45	17	4
Diagnostic techniques (e.g., Cloze)	21	52	17	10	29	50	16	6
Group projects	21	51	21	7	21	51	23	5
Tests adapted from other sources	12	31	31	26	14	36	33	17
Student self-evaluation	11	32	34	23	16	40	32	13
Standardized tests	5	24	38	33	9	32	36	23
Peer evaluation	3	23	31	43	6	29	36	29

TABLE D-22: FREQUENCY WITH WHICH 4-6 TEACHERS USED METHODS TO ASSESS THE PROGRESS OF THE SELECTED STUDENT WITH BASIC LITERACY DIFFICULTIES, AND USEFULNESS OF ASSESSMENT METHODS (IN %)

	FREQUENCY				USEFULNESS			
	Often	Sometimes	Rarely	Never	Very Useful	Useful	Min. Useful	Useless
Observation	92%	7	1	-	79	19	2	-
Individual assignments	65	29	5	1	54	38	7	1
Reading/writing folders	58	29	6	7	50	38	9	3
Teacher-produced tests	52	38	8	2	38	48	12	2
Student journals	42	23	14	21	36	35	20	9
Interviews/conferences with students	37	50	11	2	42	46	10	2
Student-directed projects (individual)	34	47	14	5	35	49	13	3
Group projects	22	58	18	3	19	58	25	4
Tests adapted from other sources	19	41	27	12	16	48	29	7
Diagnostic techniques (e.g., Cloze)	18	51	22	10	26	52	18	4
Interviews/conferences with parents	17	64	15	3	28	49	20	3
Student self-evaluation	15	37	31	17	19	44	28	9
Standardized tests	8	29	43	20	11	38	37	13
Peer evaluation	6	30	34	31	8	37	38	17

TABLE D-23: FREQUENCY WITH WHICH 7-9 TEACHERS USED METHODS TO ASSESS THE PROGRESS OF THE SELECTED STUDENT WITH BASIC LITERACY DIFFICULTIES, AND USEFULNESS OF ASSESSMENT METHODS (IN %)

	FREQUENCY				USEFULNESS			
	Often	Sometimes	Rarely	Never	Very Useful	Useful	Min. Useful	Useless
Observation	87%	11	2	-	73	23	4	-
Individual assignments	66	26	5	3	55	38	6	1
Teacher-produced tests	56	35	6	3	37	50	10	2
Reading/writing folders	38	25	13	25	38	39	13	10
Interviews/conferences with students	33	53	11	4	40	50	9	1
Student-directed projects (individual)	32	41	19	8	36	45	15	4
Student journals	27	23	12	38	30	37	18	15
Group projects	19	48	20	13	17	49	28	6
Interviews/conferences with parents	13	56	22	8	24	48	23	5
Tests adapted from other sources	13	34	27	26	17	41	30	12
Student self-evaluation	12	32	31	25	16	39	32	12
Diagnostic techniques (e.g., Cloze)	8	34	30	28	17	45	29	9
Standardized tests	7	26	32	35	13	36	32	19
Peer evaluation	6	25	31	37	9	30	38	23

TABLE D-24: FREQUENCY WITH WHICH 10-12 TEACHERS USED METHODS TO ASSESS THE PROGRESS OF THE SELECTED STUDENT WITH BASIC LITERACY DIFFICULTIES, AND USEFULNESS OF ASSESSMENT METHODS (IN %)

	FREQUENCY				USEFULNESS			
	Often	Sometimes	Rarely	Never	Very Useful	Useful	Min. Useful	Useless
Observation	83%	15	1	1	62	34	4	1
Individual assignments	64	28	5	4	52	42	5	1
Teacher-produced tests	60	33	4	3	38	52	8	2
Interviews/conferences with students	32	52	11	6	38	48	10	3
Student-directed projects (individual)	28	38	20	13	32	48	15	5
Reading/writing folders	21	23	14	42	24	38	20	18
Group projects	20	43	20	17	19	46	26	9
Tests adapted from other sources	16	28	24	32	15	44	26	15
Student journals	16	18	14	52	18	34	23	25
Student self-evaluation	12	31	27	30	13	42	30	15
Interviews/conferences with parents	8	48	32	12	18	49	25	8
Diagnostic techniques (e.g., Cloze)	8	21	24	48	14	40	28	18
Standardized tests	7	15	27	52	8	32	36	24
Peer evaluation	7	25	24	45	10	31	33	26

TABLE D-25: TEACHERS INDICATING FIVE OPTIONS WHICH WOULD HELP IN ADDRESSING STUDENTS' LITERACY DIFFICULTIES, BY GRADE (IN %)

	K-3	4-6	7-9	10-12	TOTALS
Lower student/teacher ratios	73%	73	77	75	75
Resources/materials	50	53	46	38	49
Opportunity to plan	50	47	42	36	44
Human resources	39	42	35	29	38
Greater coordination among people/services involved with students (e.g., parents, school, health and social services)	39	39	41	37	40
Training/professional development opportunities	38	43	45	46	43
Opportunity to consult with specialists	37	37	38	34	37
Parent/community education	36	27	27	28	31
Opportunity for collegial collaboration	32	27	29	33	30
Broader emphasis placed on language development by teachers and administrators	25	29	36	43	34
Teacher autonomy (e.g., to select resources/in-service)	20	21	17	15	19
Classroom-based research	7	9	7	6	8

APPENDIX E:

ANALYSIS PROCEDURES FOR TEACHERS' REPORT OF EXTENT OF LITERACY DIFFICULTIES

Teachers' reported proportions of students with literacy difficulties were calculated for each teacher by dividing the number of students with difficulties by the class size. The computer analysis which produced frequency distributions and boxplots showed that the distributions of the proportions were skewed and had standard deviations that varied in direct proportion to the means. The nature of the distributions was such that many classes had low or moderate proportions (less than half) with literacy difficulties and few had high proportions. In order to summarize teachers' estimates of the prevalence of literacy difficulties among Canadian school children, we could not simply average proportions in the classes; for estimates to be meaningful, we needed means and standard errors based on more normally distributed measures. Also sources of systematic variation had to be determined; i.e., socio-economic status, location of school (urban vs. rural), class size, and of course region.

Consequently, the following procedures were followed:

1. The class proportions were normalized by applying the ARCSIN square root transformation; i.e., proportion with difficulties = ARCSIN (square root[proportion with difficulties])
2. An analysis using SPSS was done to assess the level of resolution and the amount of variation accounted for by SES (as broadly defined by school principals)*, school location (urban vs. rural), class size (< 15 students vs. >= 15 students per

class) and grade level of class (K to 3, 4 to 6, 7 to 9, 10 to 12, including OAC classes [Ontario Academic Credit or previously Grade 13 courses]). One-way analysis of variance was done to determine the effect of these variables.

3. Where the one-way analysis of variance indicated significant differences in prevalence for the aforementioned demographic variables, the particular variable(s) were examined to determine whether they warranted inclusion in the estimate of overall prevalence.

4. The three levels of SES[*] yielded significant differences with respect to prevalence of literacy difficulties. SES was, however, not included as a weighting factor as it is assumed that the various SES groups were represented in the sample similarly to the actual proportions across the country.

5. The school location analysis indicated no significant difference in prevalence across the two categories, urban and rural.

6. There were significant differences in prevalence of literacy difficulties among the grade levels. The grades, as was the case with SES, were considered to be distributed similarly to the actual proportions across Canada. Therefore grade was not included as a factor to be used for weighting the data.

7. Since class size analysis indicated significant differences in prevalence, class size became a weight factor in the following manner:

   The average class size was calculated to be approximately 23.7 students.

   The class size reported by a given teacher was divided by the average class size to derive a weight.

   If a class had only 12 students this weight would be approximately .50.

   Therefore, the teacher's proportion would contribute only one half of an observation and not a whole observation when calculating the mean.

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[*] In defining SES, the principals had indicated on their questionnaires the percentage of students who were from lower, middle and higher socioeconomic backgrounds. SES was calculated as follows: for each school, total SES = (3 x percentage of students from higher socioeconomic homes) + (2 x percentage from middle SES homes) + (percentage from lower SES homes). The schools were then rank ordered on the basis of this total SES number. The top third among the schools was considered high, the middle third, middle, and the bottom third low in socioeconomic status. This method provides a basis for meaningful comparison, but the terms low, middle and high have only relative meaning and not a real meaning independent of this analysis.

8. The region of each teacher survey was also included in the weighting so that the various regions in Canada were represented in proportion to their total school enrolment.

9. Each of steps 4, 5 and 6 of the analysis was repeated with the region and class size weights in place to determine if the effects of these two variables in some way accounted for the differences previously seen or for the lack thereof.

10. In summary, the final estimates of the proportion of students with basic and critical literacy difficulties were calculated using the formula:

    $$\text{proportion with difficulties} = \frac{\text{number with difficulties}}{\text{class size}}$$

    This number was then transformed using the formula:

    proportion with difficulties = ARCSIN (square root [proportion with difficulties])

11. These proportions were then used in one-way analysis of variance by type of community, SES, grade and class size, with weighting for regional representation and class size.

    This analysis results in estimated mean proportions and 95 percent confidence interval endpoints across each of the demographic categories as well as overall.

12. The estimated proportions and confidence interval endpoints then underwent the inverse transformation ($x = [\sin x]^2$) to provide us with our final estimates of proportions with basic and critical literacy difficulties as well as the 95 percent confidence intervals.

APPENDIX F: SCHOOL LITERACY ACTIVITIES

(IDENTIFIED BY PRINCIPALS)

School Literacy Activities

- politicians, trustees, superintendents and other senior staff read their favourite books to students;
- students read their work to the principal and vice-principal;
- principal has weekly meeting with class representatives to identify the highlights of students' writing and reading;
- principal encourages reading when visiting classrooms;
- students publish books for a Young Authors' Conference;
- an Author's Corner and Writer's Wall where student authors/works are displayed;
- publishing students' books with special grant money received from school board;
- the library is used as a "publication centre";
- the library contains books published by students;
- students write letters to other students in the same or another school (Pen Pal Club), via a school post office;
- student newspaper; student yearbook;
- plays, written by students, are presented to entire school;
- writers' workshops;
- Learning Assistance/Literacy Program for students having learning/reading difficulties;
- a dedicated Learning Assistance teacher;
- computer assisted language skills software and computer lab;
- the principals support those classes participating in book clubs;
- Library Book Club, Readers' Club, English Language Centre;
- student council activities, assemblies;
- teachers have daily oral reading to students;

- School Book Fair;
- students are encouraged to visit other people and classes in the school to share their favourite stories or stories they have written themselves;
- principals provide extra funding for reading materials (other than textbooks) in the library and classrooms;
- students answer school phones (at noon hour) and take messages;
- students keep Literacy journals;
- students keep a reading log, recording the types of books and articles read and summarizing them; and,
- styles of particular authors are studied and their books read.

Parent Activities to Promote Literacy

- Partners in Action where novel units are studied with parent volunteers in Junior level classes;
- parent volunteers listen and read to students;
- the parent handbook contains the school's whole language philosophy and associated methods of teaching reading and writing;
- workshops are presented to parents in planning the meaning of whole language approaches to learning;
- at Parent Council meetings, teachers and administrators speak to reading as a key to success;
- at Home and School meetings, the school board's primary consultant speaks to parents about the development of the board's Language Arts program and its intended effect on children's initial school years;
- meetings with parents to discuss quality books and give assistance on how to choose good books;
- meetings with pre-schoolers' parents to suggest how they can prepare their child for school and how parents can help make schools an "enriching experience";
- newsletters containing articles on teaching, reading, writing, speaking, listening, compiled by students are sent home with students;
- parents are informed about an adult literacy programme at a local school;

- notices about research on literacy are sent to parents in newsletters;
- pamphlets sent to parents such as "Studying: A key to success," "Ways parents can help," "Summer reading is important," "Good books make reading fun for your child," "You can encourage your child to read," "Eating well can help your child learn better," and "Your home is your child's first school;"
- children in the book reading program earn special buttons for reading or having their parents read to them;
- Book Fairs are arranged for both adults and students; and,
- children write letters, including letters to parents.

Community Literacy Activities

- Read-a-thons such as the World Books' Partners in Excellence Program, where money is raised towards the purchase of encyclopedias for the classrooms;
- students perform their work at senior citizens' homes;
- students are involved in public speaking contests sponsored by service clubs, such as the Legion;
- students are encouraged to take part in literacy and math competitions;
- submitting articles and short stories to local newspapers which often have a section devoted to education;
- "Language and Learning" school representatives keep staff informed of regional activities and trends;
- visits by well-known children's author such as Robert Munsch;
- author Eric Wilson is using students from one school as student editors for his new book;
- samples of students' work are displayed in school board offices, local stores, or in nearby shopping centres;
- schools have a "Library Book Day" where books are displayed and purchased by students and the school receives a percentage of the profits which are used to purchase more library books; and,
- students are given the opportunity to purchase books once a month from the Scholastic Book Club.